

FT
MEADE

F 9
.G332
Copy 1

Geography of New England

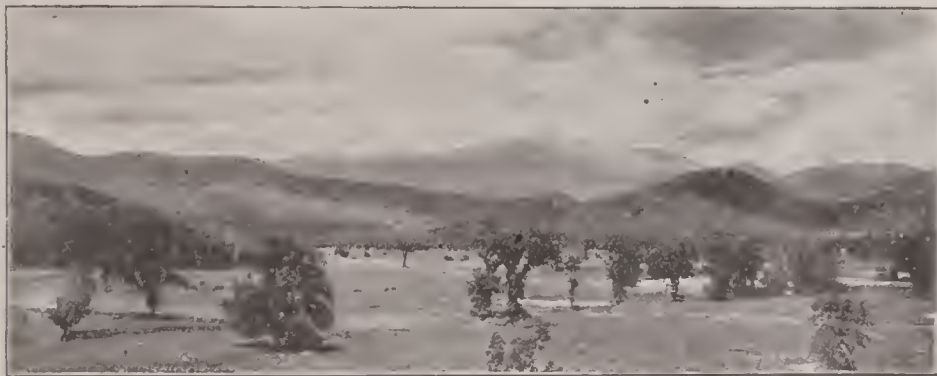
GEOGRAPHY OF NEW ENGLAND.

(See relief map on page 3.)

Size and Rank.—The New England States taken together occupy only about one-fiftieth of the area of the United States, but in population and wealth they are more important than this would indicate. Of the one hundred and five million people in the entire country, about seven and one-half million live in New England. About what proportion is that of the whole population? In wealth these states have even a higher rank than in population. To have so large a population and to contain so much wealth, this small section of the country must have many advantages.

Situation and Boundaries.—The six states called New England lie in the northeastern part of the United States, at about the same distance north of the equator as the southern half of France and parts of Oregon and Washington. The northern boundary of Vermont lies midway between the equator and the north pole. What is the latitude of this boundary line?

The northern and western boundaries are political, except where the extreme northern part of Maine is separated from Canada by the St. John and St. Francis rivers, and where Vermont is separated from New York by Lake Champlain. The eastern and southern boundaries are made by the Atlantic Ocean and Long Island Sound.



Presidential Range from North Conway.—Mount Washington in the distance.
(Photo. loaned by Boston and Maine Railroad.)

Surface.—Physically, New England is divided into three regions, the boundaries of which are not very distinctly marked.

The *Mountainous region* is a part of the old Appalachian mountain system; east and south of the mountains the *Piedmont region* stretches in most parts of New England to the sea in ever-diminishing heights. Locally, this is known as the upland region of New England. In southeastern Massachusetts the *Coastal Plain* appears in sandy tracts of comparative lowland. North of Massachusetts

there is no Coastal Plain. Whatever of coastal plain once extended there has sunk so that the waves of the ocean now dash against the Piedmont.

Ages ago much of this entire section of country was mountainous and covered by the great glacial cap. This, as it moved slowly toward the sea, carried along with it soil, pebbles and boulders of the high regions,



Glacial boulders, New Haven, Conn.

leaving the mountains much lower and with rounded, worn off tops, and the plateau or piedmont regions to the east hilly, stony and covered with drift from the denuded mountains.

Locate the White Mountains; the Green Mountains; the Taconic Ranges; the Hoosac Mountains. All these ranges bear evidence of having been at one time much higher than at present.

After the glacier had melted, the rough piedmont plateau east of the mountains was itself slowly worn down by the action of rain and river until it was a rather low plain with here and there a single high hill or mountain left standing upon it. These single peaks are

parts of the old plateau. They were composed of harder rock than those parts lying around them and so resisted the erosion by rains and rivers which was washing away the softer parts of the plateau. They show how high the plateau once was and to what extent it has been lowered by erosion. There are many

more of these single elevations, called monadnoeks, in northern and central than in southern New England.



Mt. Anthony, a monadnock, from Bennington.
17.—Soldiers' and Sailors' Monument on the left.

Find Mt. Katahdin; Mt. Bigelow; Mars Hill; Mt. Greylock; Mt. Monadnock; Mt. Kearsarge; Mt. Holyoke; Wachusett Mountain; Bear Mountain.

In course of ages this plain, which had been so lowered by erosion, was gradually lifted until it became an upland, sloping gently to the sea. As the upland rose, the rivers flowed quicker, and with more cutting force.

Where the rocks were comparatively soft the rivers carved out for themselves broad valleys. The Connecticut is one of these rivers. Trace its course. The rocks of this region below northern Massachusetts were comparatively soft; hence the river cut more

easily, and the lower valley is broad, with gently sloping, somewhat terraced sides. The soil of these broad valleys is generally fertile, and here are found the richest farm lands of New England. Towns are located in many places along the banks of the Connecticut. Name six towns on the Connecticut below Greenfield; six above Greenfield.



The winding course of the Connecticut River showing its broad valley, with gently sloping, somewhat terraced sides.

Where the underlying rocks were harder, erosion was much slower, and the sides of the valleys were not so much cut away, and are therefore steeper than where the rocks were softer. Most of the



The Penobscot River, Maine, showing a steep-sided valley and rapid current.

other New England valleys are steeper than the Connecticut Valley.

In many of these steeper valleys the rivers rush with force, and frequently tumble to a lower level over hard trap rock which has resisted erosion. These waterfalls, so common in New England, made this region a manufacturing country, since mill wheels were, and in many cases still are, turned by the force of the swift-falling water.

Find the Merrimac River. It reaches the sea over a series of falls, and turns more mill wheels than any other river in the country. Name five large cities situated on it. Each of these is a great manufacturing centre. The falls of the Androscoggin,

particularly where Lewiston and Auburn are situated, furnish power for some of the largest mills in New England.

Locate Augusta; Bangor; Ellsworth; Gardiner; Biddeford and Saco. All of these towns in Maine are manufacturing centers because of the falls in the rivers on which they are situated. So also are Dover, Somersworth, and Berlin in New Hampshire. On what rivers are they situated? The Winooski River in Vermont furnishes water power for the mills of Winooski and Montpelier. Woonsocket in Rhode Island uses the falls of the Blackstone for its great factories. Norwich, Middletown, Waterbury and other towns of Connecticut have grown up around waterfalls. Many of these and many other of the manufacturing centers of New England now use steam and electricity as well as water power to turn their mill wheels.

The Coast.—The upland near the coast has slowly sunk again, and the sea has covered whatever there once was of coastal plain, invaded the river valleys near their mouths, and broadened them into estuaries, which form bays and harbors. The islands which skirt much of the coast of Maine and some of the rest of New England are evidently hills which were not entirely submerged.

The bays and sounds of eastern and southern New England afford such excellent harbors that cities of great size and commercial importance have grown up about them. The most important of these bays and cities are Massachusetts Bay, with Boston as its great commercial city; Narragansett and Mount Hope bays, where are located Providence and Fall River; Casco Bay, where Portland has a fine harbor; Buzzards Bay, with New Bedford for its port.

Notice the situation of New London, Pawtucket, Biddeford, Bath, Bucksport. On what river mouth is each situated?

Lakes.—As the glacier moved slowly toward the sea it sometimes scoured out rounded valleys, and sometimes, as it melted, it dropped a load of pebbles, sand and boulders sufficient to dam up some of the old streams. In both of these ways lakes were formed

all over New England, but particularly in the northern part. Which state has the greatest number of large lakes? Name seven of the largest lakes of Maine. What large lake is in New Hampshire? What lake in western Vermont? These lakes store up reservoirs of water to feed the rivers and add much beauty to the scenery.

Drumlins and Glacial Hills.—Some times the boulders, pebbles and sand which had been gathered by the glacier were deposited

over the land, as the glacier melted, in such quantities as to form a line of hills across the end of the glacier. Rivers formed by the melting ice deposited much of the material covering Cape Cod and southeastern Massachusetts. The islands of Nantucket and Marthas Vineyard were formed of these glacial deposits, and the hills across their northern sides are the piled up glacial debris. Long lines of glacial hills, sometimes called drumlins, are found in Massachusetts, Connecticut and Rhode Island. Bunker Hill and Beacon Hill, in Boston, are drumlins.



Lake Memphremagog, Vermont.—A glacial lake.
(Photo. loaned by Boston and Maine Railroad.)



The falls of the Androscoggin River at Lewiston, Maine, showing factories which use the water power, and the bridge connecting Lewiston and Auburn.

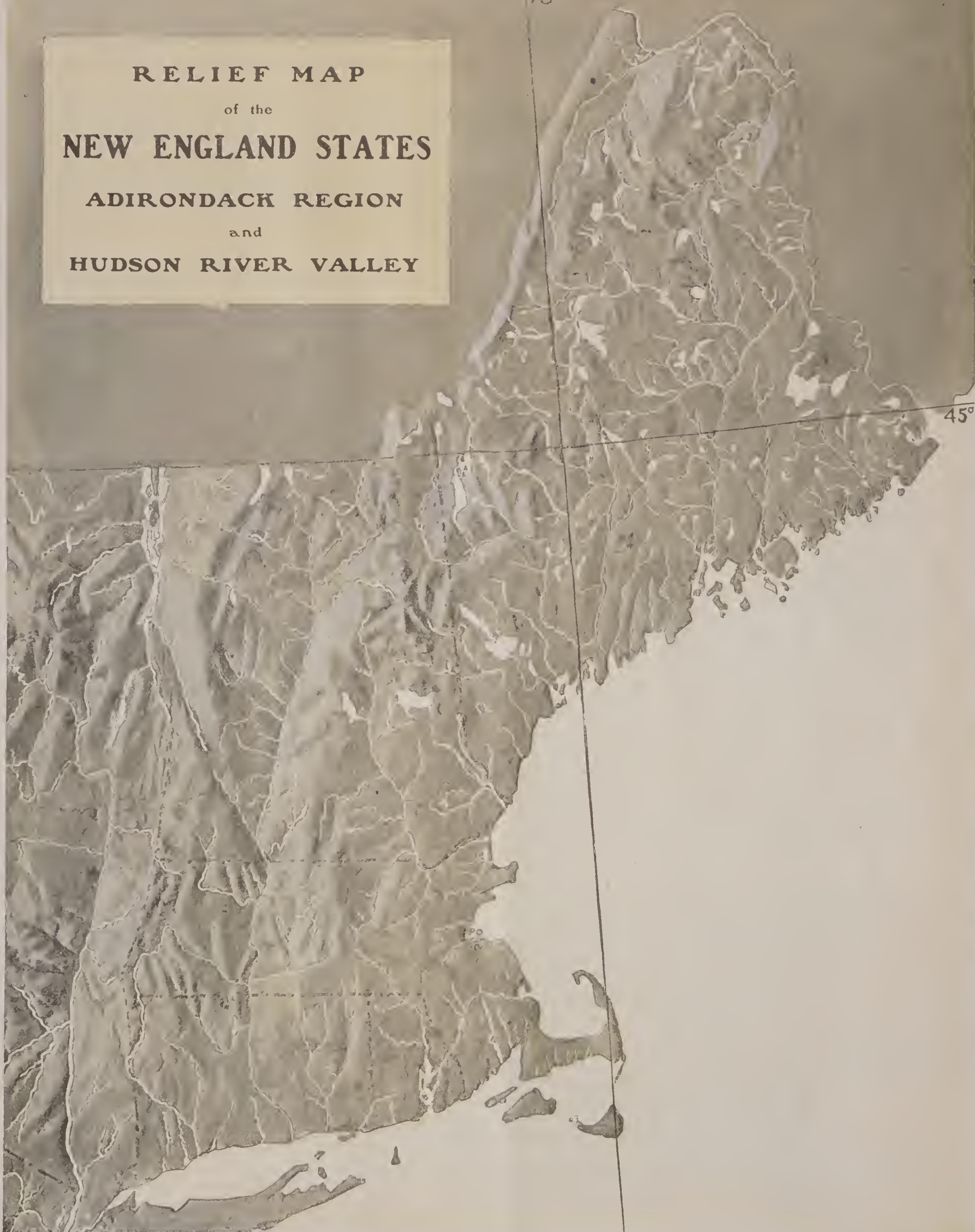
Distribution of Population.—The valleys which are covered over with fine soil washed down from the heights above contain the richest farm lands, and the rivers provide water power for mills. The lowlands have a finer and less rocky soil than the uplands, and both valleys and lowlands have a less rigorous climate, and hence produce a wider range of products than the uplands. It is easier, also, and much less expensive to build railroads along comparatively level than

over hilly land; and, finally, many of the rivers broaden out near their mouths to estuaries sufficiently deep for commerce. Therefore, most of the people of New England live in the river valleys and lowlands.

Climate.—Since New England is in the eastern part of the continent and in the temperate zone, it is in the path of the westerly winds which blow pretty steadily across North America from west to east, and bring with them the temperature of the region over which they have travelled.

These "westerlies" move east in whirls or circles, so that the sections of country through which they travel are subject to frequent changes of weather. In New England, when the wind is from the northwest, the air coming from northern Canada is dry and cold. A southwest wind brings heat from the warm interior of the continent. A southeast wind comes moisture-laden from the warm South Atlantic, and a northeast wind brings cold rains and sometimes gales from the Arctic seas of the North Atlantic.

RELIEF MAP
of the
NEW ENGLAND STATES
ADIRONDACK REGION
and
HUDSON RIVER VALLEY



New England, therefore, has a severe climate. Its summers in plains and valleys are hot, with frequent thunderstorms, accompanied by heavy rains. The air on the mountains, however, is tempered by altitude. Near the coast the climate is modified by sea breezes. The winters, in most parts, are long and cold, with heavy snows and frequent changes of wind and temperature. The coasts have a less rigorous climate than the interior; their harbors are never closed by ice; and Connecticut and Rhode Island have a milder climate than Maine, New Hampshire, and Vermont.

The rainfall is sufficient for agriculture and is quite evenly distributed throughout the year. Along the coast it is heavier than in the interior, and on the highest mountain ranges it is very heavy indeed, reaching an average of more than 80 inches a year. The average annual rainfall for the whole section is about 35 inches.



Entrance to Boston Common.—A New England winter scene.

Granite, marble, sandstone, and slate are obtained in great quantities in various parts of this section.

More than half of the granite quarried in the United States comes from New England. It is the hardest and most valuable stone for building, paving and monument purposes, and it is quarried in every one of the New England states, but particularly in Vermont, Massachusetts, and Maine. Many of the rocky headlands of the coasts are composed of fine granite, much of which is sent by vessel to cities and towns farther south.

Find Rockland, Deer Isle, Vinal Haven in Maine. Granite cutting is the chief industry of these places. Concord, in New Hampshire, has extensive granite works. Barre, in Vermont, is one of the greatest granite centres. Quincy, in Massachusetts, and Westerley, in Rhode Island, are famous for granite.

A great deal of the wealth of Vermont lies in the marble quarries about Rutland, which furnish a finer grade and a greater quantity of marble than any other of the marble fields in the United States. Portland, in Connecticut, has valuable quarries of sandstone, and slate is quarried in Maine and Vermont. Rockland, in Maine, produces more lime than any other place in the country. Many of the inland quarries have railroads running direct to the main railroad lines.

Forests.—The southern part of New England has been, to a great extent, cleared of the forest growth which formerly covered it; but



Granite quarries on Deer Isle, Maine. This island and those in the distance are hills which were not entirely submerged. (See page 2.)

Minerals.—In many parts of New England where the surface rock and soil were scraped off by the glacier from the harder rock below, tilted layers of folded rock are exposed to view. Many of these rocks make valuable building stones, which, because they were easy to obtain, have long been quarried.

northern New England is yet heavily wooded. Fully half of Maine and a good deal of Vermont and New Hampshire are still covered with poplar, birch, maple, beech, hemlock, spruce and pine, and the swamps contain cedar and cypress. Massachusetts has many



Lumbering on the Penobscot River.

varieties of oak, and the sugar maples of Vermont cover a considerable territory. Logs are cut in the autumn, hauled in winter to rivers, and are floated down the streams in the spring when the ice breaks. The great saw-mills are usually located on the rivers at the falls. Near the saw-mills are often established great lumber factories where are made boards, shingles, boxes, and all sorts of house furnishings, as blinds, doors and mouldings. In some places furniture is manufactured.

Enormous quantities of spruce are used for manufacture into paper. The thousands of tons of paper used by the newspapers of the country are now made almost entirely from wood, and a large part of this paper is manufactured in New England.

Means are being taken to prevent the destruction of the forests by careful cutting of older trees so that young trees may have a chance to grow and replace them, and there are state forestry associations to preserve the forests and to encourage the planting of trees throughout the state limits.

Animals.—The forests of New England are still the homes of such large animals as moose, deer, caribou, bears and foxes. In the forests of the extreme north are found the beaver, otter, marten and wild cat, while over most parts of the section there are rabbits, woodchucks, squirrels, skunks, weasels and porcupines.

Crows, hawks, eagles, owls and partridges make their homes in New England, and during the summer the forests are filled with birds which nest and breed there, but go south again in early autumn.

Fisheries.

—In those parts of New England which border on the ocean many people are engaged in fishing or in curing and



Curing codfish in Gloucester, Mass. The frames on which the fish are dried are elevated about two feet, and are called "fish flakes."

exporting fish. From Boston, Gloucester, Portland and Provincetown great fishing fleets are sent out to the banks near Newfoundland, where cod and halibut are obtained and brought back to the home ports. In the waters of the seas near the shores are caught some cod and

halibut and great numbers of mackerel, herring and menhaden. Some of the catch is sent fresh to neighboring cities and some in refrigerating cars to more distant markets. Much of the cod and halibut is dried; the mackerel is preserved in brine, and the herring is smoked. A large part of each of these is sent to the West Indies and to our own southern and inland states. Great numbers of small herring are caught off the coast of Maine and canned in oil, as sardines. Eastport and Lubec have extensive canning factories. The menhaden is too oily a fish for food, but makes a valuable fertilizer and yields a good oil used in dressing leather and in rope making.



Oyster fishing at the mouth of the Quinnipiac River, Connecticut. The town of Fairhaven visible in the background.

Farther south, off the shores of southern Massachusetts, Connecticut and Rhode Island, are obtained oysters, clams, lobsters, scallops, shad and bass, which are sent to New York, Boston and other markets, and yield a large revenue to the coast towns of these states.

The rivers of Maine yield salmon in considerable quantities, and the lakes trout and pickerel. Many visitors are attracted to the State in the fishing season, for the sport.

The United States Fish Commission has a station at Woods Hole, Massachusetts. Here scientists are studying fish, their habits and foods, and from here are sent young fish and fish eggs for the restocking of streams and coast waters. Young oysters are planted in old and exhausted oyster beds.

Agriculture.—A good deal of New England is too rugged for cultivation. The soil of the uplands is generally thin, poor and rocky, and the returns from it are not large enough to compete with those of the rich farm lands of the Central and Middle States. While the average farm of the Central States uses only \$37 worth of fertilizers a year, the average farm of New England uses almost twice as much. Less than one per cent. of the grain raised in the United States is grown in New England, and this, of course, is not enough to feed her own people.



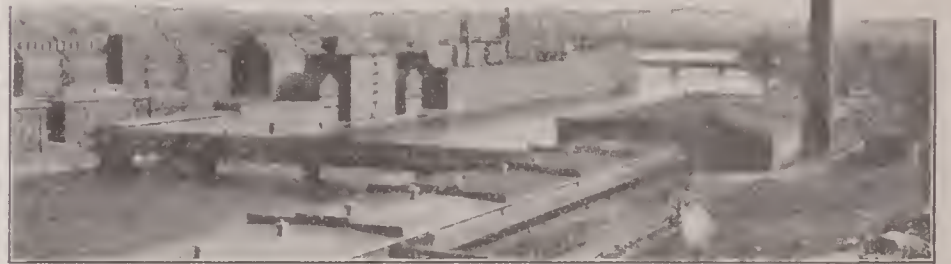
A Berkshire farm in the uplands of Western Massachusetts.

The well-watered uplands make fine grass lands, however, so that dairying has become a paying occupation, and the raising of domestic animals is profitable. The large cities of New England are supplied with cream, butter and cheese of excellent quality from the dairy farms of the section. Hay is by far the most valuable crop. In the north, great quantities of potatoes are raised and corn and oats yield a considerable revenue. Apples, grapes, pears and small fruits are profitable. In Massachusetts, Rhode Island and Connecticut considerable market gardening is done to supply the cities and large towns with vegetables and fruits.

The broad terraces of the Connecticut Valley are covered with a rich, deep soil, and yield large returns in tobacco, peaches, corn, oats and garden seeds.

Manufactures.—From the snows of the mountains, from the generous amount of rainfall, and from the many lakes, the rivers of New England are fed with constant streams of water which tumble unceasingly over many falls and turn many mill wheels. Many of the falls occur in the rivers at points near the coast, where it is easy to reach seaports, and also where it is easiest to build railroads. The cost of transportation to vessels is not great, and the network of railroads over New England brings all parts of it into communication with the coast, with the manufacturing centers, and with all other parts of the United States. Therefore, although New England must import almost all of the coal and iron she uses, and also the raw products for her mills and factories, yet she ranks as one of the leading manufacturing sections of the United States, and the products of her mills, looms and factories are found all over the world. In the United States, as a whole, there are about one and a half times as many people engaged in agriculture as in manufacture. In all the states of this section except Vermont more people are engaged in manufacture than in agriculture; and in Rhode Island and Massachusetts five times as many are engaged in manufacture.

The leading manufactures of New England are cotton goods, boots and shoes, woollen goods, machinery, paper and wood pulp, lumber, and brass and bronze products;



Mills at Manchester, New Hampshire, showing Merrimac River.

but there is hardly anything useful that can be mentioned which is not manufactured in some part of New England.

Trace an outline map of New England, and locate Lewiston, Biddeford and Saco, Manchester, Dover, Fall River, Lowell, Lawrence, Holyoke, Pawtucket, Woonsocket, New Bedford, Taunton, North Adams, Augusta and Nashua. These are all centers of the cotton manufacture. Fall River leads the United States in the manufacture of cotton goods.

On another outline map show the location of Manchester, Lynn, Haverhill, Brockton, Auburn, Nashua, Worcester, Boston and Salem. Although boots and shoes are made in a great many towns in the New England states, these are the great centers for the boot and shoe manufacture.



Woollen Mill, Lowell, Mass.

The woollen mills, which include the carpet manufactories, are more scattered than either the cotton mills or the boot and shoe factories; but the largest and most important factories are located at Lawrence, Lowell, Manchester, Pittsfield, Clinton, Fitchburg; Sanford, in Maine; Holyoke, Worcester, Pawtucket, Providence and Woonsocket. How many of these cities are engaged in manufacturing cotton and boots and shoes also?

The greatest paper and pulp mills are in the north, near the forests of spruce and poplar. The largest of these mills are on the Androscoggin, Kennebec and

Penobscot rivers and on the Connecticut. The greatest foundry, hardware and machine shops are at Providence, Boston, Worcester, Bridgeport, New Haven and Hartford. In the manufacture of rubber goods Massachusetts, Rhode Island and Connecticut lead. Important factories are located near Boston, in Providence, and in New Haven, Hartford, and other cities of Connecticut.

Commerce.—The fact that New England must import foodstuffs for her people and the raw material for her factories, and the fact that she must ship to other sections the larger part of the product of her factories, give us the reasons for her enormous commerce.

The foreign trade of New England, which largely centers in Boston, consists in importing such raw materials as cotton, wool, raw silk, leather, and rubber, and such other things as drugs, dyes, sugar, coffee, and tea, and in exporting textiles, leather and rubber goods, machinery, dried fish, and all kinds of manufactured articles. The principal foreign trade is with Europe, Australia, South America, and the West Indies.

A large part of the commerce of New England is carried on by means of railroads, with which this section is well supplied, and which connect the great manufacturing centers with each other and with the cities of the West and South. Since freight charges by sea are less than by land, many of the factory cities near Boston receive raw materials through that port and send their manufactured goods there to be shipped by sea. The value of the imports for one year brought through the port of Boston was over \$115,000,000, while the exports mounted up in value to about \$74,000,000.



Scene in Boston Harbor.

There are other ports of importance in New England, notably Portland, Portsmouth, New Haven, Salem, Gloucester, New London, Stonington, but none of them is nearly so important as Boston.

Aborigines.—On the arrival of the colonists from England, the territory was found sparsely inhabited by Indians of the Algonquin family.



Grinder room and beater room in paper mills at Millinocket, Maine.

The names of many New England localities, such as Memphremagog, Winnepesaukee, and Sunapee, bear evidence to this early occupation of the country by Indians.

European Settlement.—The settlement of New England began in 1620, with the landing of the Pilgrim Fathers at Plymouth, Massachusetts.

Previous to this time there had been an unsuccessful attempt to plant a colony at the mouth of the Kennebec, and temporary fishing stations had existed on the coast of Maine.

Three years after Plymouth was founded, settlements were made on the Piscataqua, near the present site of Portsmouth, in New Hampshire.

A few years later the colony of Massachusetts Bay was founded at Salem, and soon after, Boston was settled. During 1635 and 1636, the Connecticut Colony was founded, through the settlement at Hartford, Windsor, and Wethersfield of emigrants from Massachusetts.

About the same time, Providence was founded by Roger Williams, who was banished from the Massachusetts Colony. This was followed by the settlement of the island known as Aquidneck, or Rhode Island.

By this time there was a considerable population in the southwestern corner of what is now the State of Maine.

Meanwhile, Saybrook, at the mouth of the Connecticut, was settled. This remained a distinct government for some years, but was finally united with the Hartford Colony. In 1638, the New Haven Colony was planted through the foundation of the town of that name.

It thus appears that, within twenty years after the Pilgrims landed at Plymouth, settlements were commenced within the present limits of all the New England States, except Vermont.

Early Growth.—For a brief time the growth of these colonies was rapid; but after 1640, immigration was checked by wars in England.

In 1662, the two colonies of New Haven and Connecticut (Hartford) were united by a new charter granted by Charles II. In 1677, what is now the State of Maine became a part of the territory of Massachusetts.

In 1691, the colonies of Plymouth and Massachusetts Bay were united and became the colony of Massachusetts.

Vermont was not settled until the eighteenth century; the first occupation of its soil by whites occurred in 1724, when Fort Dummer was erected where now the town of Brattleboro stands.

From the close of the seventeenth century to the outbreak of the Revolution, New England contained four colonies, New Hampshire, Massachusetts, Rhode Island and Connecticut. It was not until



Plymouth Rock.



The Roger Williams Church, Salem.

1791 that Vermont was admitted to the Union. In 1820, the sixth New England state was formed by the separation of Maine from Massachusetts.

Early Government of New England.—In 1643, a New England Confederation was established under the presidency of Governor John Winthrop; and though this union lasted but a short time, yet wars against the Indians and several expeditions against the French in Canada, conducted by the four colonies, did much to draw them together.

At times there was even a common governor for all New England. Moreover, the forms of government were nearly alike in Massachusetts, Connecticut, and Rhode Island. These colonies received "charters" from the King of Great Britain, which gave more rights to the people than were possessed in the other colonies.

The colony of New Hampshire, being near to Massachusetts, and, indeed, some of the time under the same government, shared largely the advantages of its neighbor's charter.

All this, together with the fact that the country on the west was settled, not by the English, but by the Dutch, gave the early government of New England a political character of its own, which lasted with little change until the Revolutionary War, and has made even the present forms of local government in the New England States differ not a little from those of other sections.

The Town System.—The most marked feature of New England local government is the "town system." Elsewhere, the word town means a village, or borough, or small city. Throughout New England it means a large tract of land and includes within its borders villages, boroughs and farms found within the borders of the town.

The New England "town" usually embraces from twenty to forty square miles of territory. A town may have from two hundred to ten thousand inhabitants. These



Witch House, Salem.

There is a tradition that some of the persons accused of Witchcraft were examined here.

inhabitants govern themselves, to a large extent, through their own officers chosen in "town meeting." These town officers do many of the things which, in the West and South, are done by officers chosen by the people of a whole county.

President Jefferson called these New England towns "little republics," and thought they had much to do with educating the people in their political duties, and with making these states strong both in peace and war.

In New England, it is only when population becomes very large that a city is "incorporated;" whereas in the South and West "cities" often exist which have only 1,000 or 500 inhabitants, or even fewer.

Population.—The first settlers, from 1620 to 1660, were almost exclusively from England. Immigrants from France, Holland, and



Minute Man, Concord, Mass.

"Here once the embattled farmers stood and fired the shot heard round the world."

Germany, such as settled New York, would have been considered "foreigners" in New England. A very few French Protestants (Huguenots) came to Boston.

After 1846, the year of the great famine in Ireland, the Irish came in vast numbers, settling especially in Massachusetts, Rhode Island, and Connecticut.

About 1860, the British-Americans, especially the French Canadians, began to pour over the border, a part working at lumbering and rafting in the northern parts of Maine, New Hampshire, and Vermont; another part going farther south in New England, particularly to work in cotton and paper mills.

While for fifty years after the Revolution New England received very few immigrants from Europe or any other quarter, it was continually sending its sons and daughters to farm new lands farther west.

Western New York and Northern Ohio were largely settled from New England, which, later, sent great numbers of emigrants to Indiana, Illinois, Michigan, and Wisconsin; and later still, to Iowa, Minnesota, Kansas, and Nebraska.

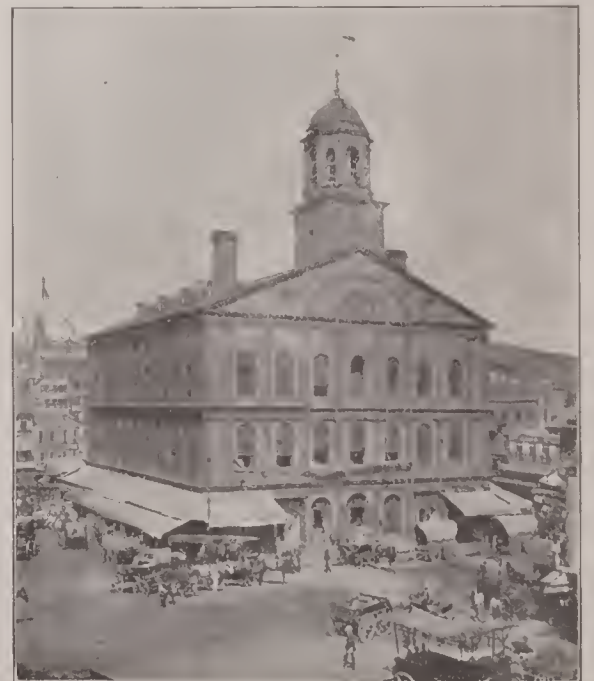
Yet, in spite of this continual loss by emigration, the population of New England increased during the period.

Between 1830 and 1846, immigration from foreign countries became larger, and the New England States filled up very rapidly, especially in the manufacturing centers. Many of the immigrants came from Great Britain and from Canada. In smaller numbers came the Germans, and recently Italians in larger numbers have come.

A little over one-third of the population is foreign. That which has attracted foreigners in such large numbers to New England has been her progress in manufactures.

Before the Revolution, England repressed manufacturing in the colonies. It was made a crime to set up a rolling-mill. Almost no cotton was grown or manufactured. A good deal of flax was raised on individual farms, but it was spun into linen by the women of the family in their own homes. The falls which now turn so many mill wheels were then unused. Until the War of 1812 other interests engaged the people of New England, but after the war attention was turned to the manufacture of cotton and woollen goods. The increase of transportation facilities has

made it possible to get cheap and abundant supplies of food and of raw materials from the widening area of easy agriculture. The energy of the New England people has been devoted to mechanical invention and to the production of an ever-increasing variety of manufactured articles; so that, although there are great manufacturing centers in many parts of the country, New England is still spoken of as the manufacturing section.



Faneuil Hall, Boston.

MAINE.

Maine.—Area, 33,040 square miles. Population, 768,014.

Surface.—The interior of the state belongs to the rugged uplands of the Piedmont region, while the eastern and coast regions belong to the lower Piedmont belt. The western half of the state has a general elevation of between 1,000 and 2,000 feet, with single peaks upon it reaching as high as 5,384 feet, the height of Mount Katahdin. The eastern half of the state is much lower, with very slight elevations at the coast. Most of the lakes for which Maine

is famous are found in the uplands, and many of the large rivers have their beginnings as outlets of these lakes. The eastern part of the state has many smaller lakes with a few, as Grand, of



Mount Katahdin, Maine, from the Penobscot River.

large size. The interior uplands, the lake regions, and the rolling hill country offer many advantages for summer homes, and are yearly visited by thousands of people seeking rest and recreation.

The coast of Maine is more irregular than that of any other part of the Atlantic coast. Account for its irregularities (p. 2). The abrupt descent of the coast and the many islands which serve to protect the inner waters make fine harbors and picturesque scenery. The coast and islands have on them many homes and hotels for summer visitors. Old Orchard and York beaches, the islands in Casco and Penobscot Bays, Mount Desert island and Deer Isle are famous summer resorts.

Drainage.—The northern part of the state mostly included in the Aroostook County is drained to the north by the St. John River, while the rivers of the rest of the state flow in a generally southerly direction to the Atlantic Ocean. The rivers of Maine, on account of their falls, do not permit much steamer travel. The Kennebec, however, is navigable to Augusta and the Penobscot to Bangor. About how far up the river is each of these cities?

Agriculture.—Agriculture is only second in importance among the occupations of the people of Maine, for a part of the land of the



Lumber Mills at Ashland, on the Aroostook River, Maine.

state is rugged, and a part is yet covered with forests. What varieties of trees are found in these forests? (p. 4.)

Many of the valleys, however, are fertile and productive. The Aroostook Valley in the far north contains the largest area of fertile land in the state. It has a fine, light, porous soil, and yields immense crops of potatoes and large quantities of apples. The potatoes are used not only for food, but also in the making of starch, for the manufacture of which there are a number of factories in this region. During the last ten years Aroostook County has increased in population about ten per cent. In the farms of the valleys farther south are raised hay, potatoes, apples, and oats, and near the cities small fruits and vegetables.

As a whole, however, farming is decreasing in the state, while dairying is increasing. Fine pasture lands, large crops of hay, and the establishment of creameries for the making of butter, and the wholesale forwarding of cream to the cities have given a great impetus to the dairying industry.

A good many fine horses are raised in Maine and large numbers of chickens, turkeys, and geese.

Manufactures.—The combination of magnificent water power, good harbors, and constantly improving facilities for railroad transportation, makes Maine preëminently a manufacturing state. In the very early part of the last century cotton mills were established at Brunswick, Wilton, and Gardiner, and a very few years later, woollen mills were operated in a few towns. Recent statistics show that the value of the cotton and woollen mill products brought to the state \$40,000,000 in one year, and that boots, lumber, and paper manufactures gave nearly \$92,000,000 more.



Kennebec Falls, Western Maine.

MAP STUDIES.

Size and Position.—Measure by the scale of miles the distance from the northern part of Aroostook County to Kittery Point. From Eastport to the Rangeley Lakes. How does Maine compare in size with the other New England States? From the map of the United States tell what states of the Union are about the same size as Maine. Which are smaller? Name some that are larger. What states are in about the same latitude as Maine?

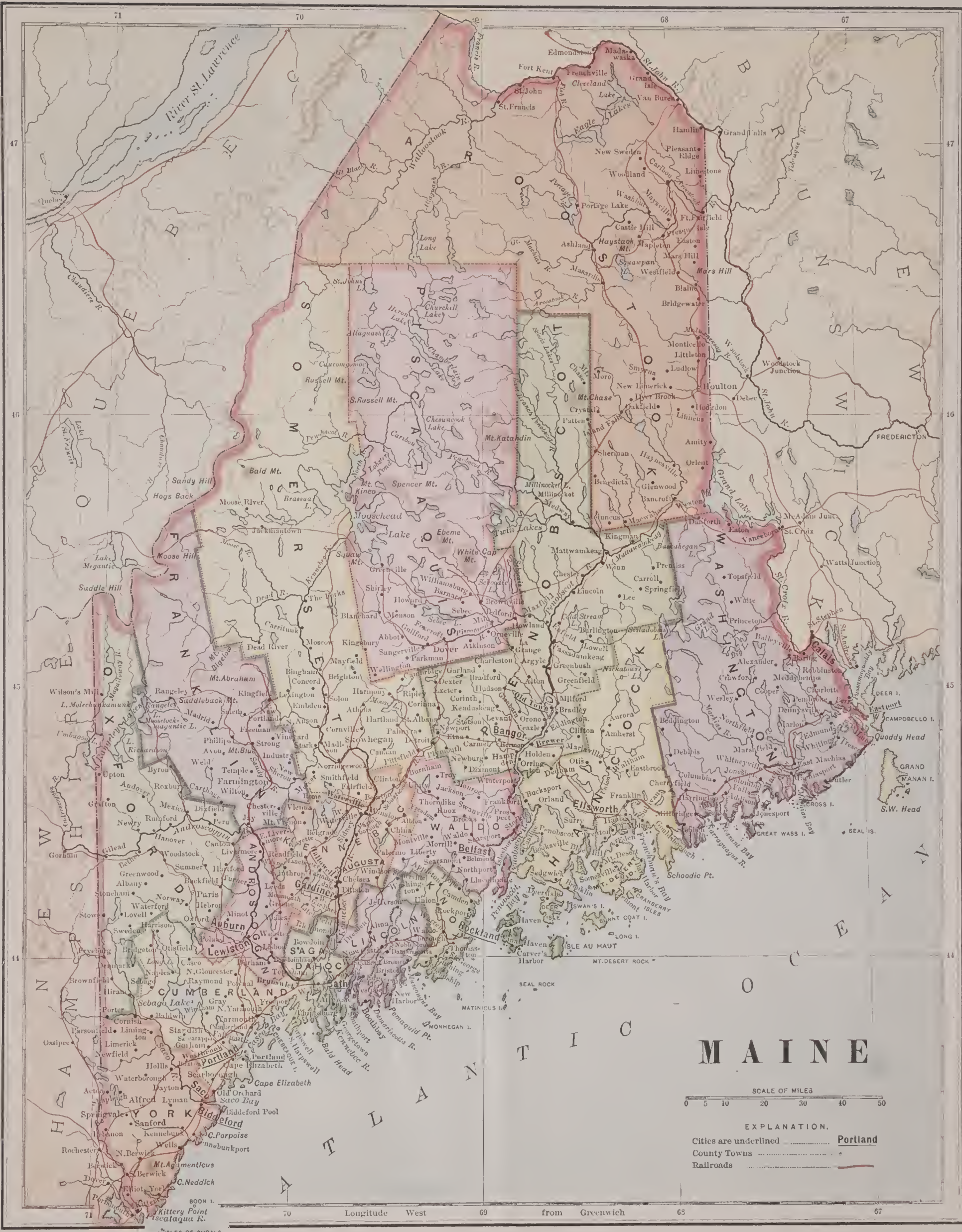
Boundaries.—Name all the natural boundaries of Maine. Has the state more natural or more political boundaries? Name the bays on the coast. Which is the largest island off the coast? Name the other large islands. Campobello and Grand Manan Islands belong to New Brunswick.

Surface.—What two regions are represented in the surface? Give the various names given to the boundary mountains of the west. What counties have the greatest number of single mountains? Name the peaks of Piscataquis County.

Of Franklin County. What are the three greatest rivers of the state? In what lakes does the Androscoggin rise? The Kennebec? The Penobscot? What river drains the northern part of the state? Name three branches of the St. John River. What lake feeds the St. Croix River? Where is Sebago Lake?

Counties.—How many counties are there in the state? Name the three largest counties. Name the counties which border the ocean. Which border New Hampshire, Quebec, New Brunswick. What four counties in the interior? Bound the county in which you live.

Cities.—What is the capital and on what is it situated? What part of the state is most thickly populated? On or near what body of water and in what county is each of the following cities? Portland? Saco? Biddeford? Lewiston? Auburn? Bangor? Brunswick? Bath? Belfast? Calais? Waterville? Skowhegan? Eastport? Old Town? Rockland? Westbrook?



SCALE OF MILES
0 5 10 20 30 40 50

EXPLANATION.
Cities are underlined Portland
County Towns
Railroads

Longitude West 71 70 69 68 67 from Greenwich

Name some of the most important manufacturing centers of Maine. (p. 5.) Portland has a great variety of manufactures and the largest foundries and machine shops in the state. On what rivers of Maine are the principal paper and pulp mills? Lumber mills and factories for the manufacture of furniture, boxes, and handles are located on these rivers, and nearer the coast in the birch counties are large spool factories. What building stones are quarried in Maine? (p. 4.) There are large slate mills where slate is cut and polished for use in building.

The canning of corn, vegetables, and fruit, and the canning and preserving of fish in the factories of the coast cities add large revenues to the state. The chief manufacturing cities are Portland, Lewiston, Auburn, Biddeford, Bangor, Bath, Augusta, Waterville, Sanford, Gardiner, and Westbrook.



Ice harvesting on the Kennebec River, at South Gardiner, Maine.

Ice Cutting.—In winter immense stores of ice are cut from the rivers of Maine. The ice is stored in ice houses on the river banks, and in the summer is shipped to cities for use.

Other Occupations.—The fine summer climate, the beauty of forests, lakes, hills and shores, the excellent fishing and good hunting attract many summer residents, so that hotels and summer boarding houses yield an income to many people.

At one time Maine was the leading shipbuilding state of the Union, but after iron and steel vessels began to replace wooden ships, the industry declined. Of late years it has somewhat revived, and now many wooden schooners and sailing vessels are built in some of the coast towns of Maine. Steel and iron ships are built at Bath.

Commerce and Transportation.

—The thickly populated southern part of the state is well covered with railways which connect the principal cities and towns with the South, the West, and with Canada. Most of the railways of the state center at Portland, and this city is used as the terminus of one of the Canadian railways. Cattle and wheat are shipped from western Canada to England by way of Portland. Steamers direct to Boston run from Portland, Bangor, Eastport and Bath, and local steamers ply between the cities of the Maine coast.

Follow on the map one of the railroad lines from Portland to Bangor. Through what towns does it pass? Go from Bangor to Calais. From Bangor to Quebec. From Portland to Rangeley Lakes.

Education.—Maine has a fine system of public schools under the general direction of the State Superintendent. All the schools



University buildings and campus at Orono, Maine. Penobscot River in the foreground.

of each town are under the care of a town superintendent and school committee.

There are over 204 free high schools in the state, five state normal schools, at Farmington, Castine, Gorham, Presque Isle, and Machias; the Madawaska Training School at Fort Kent, and a State School for the Deaf.

Berwick Academy, established more than a hundred years ago, and Thornton Academy at Saco, are well endowed and flourishing institutions. Coburn Institute at Waterville, Hebron Academy, Ricker Institute at Houlton, and Higgins Institute at Charleston are Baptist institutions and prepare for Colby College. The Maine Wesleyan Seminary and Female College at Kent's Hill and the East Maine Conference Seminary are Methodist institutions. The Bangor Theological Seminary and the Cobb Divinity School prepare young men for the ministry.

Among the higher institutions of learning from which have graduated many famous men, are Bowdoin College at Brunswick, founded in 1794; Bates College at Lewiston; Colby College at Waterville, and the University of Maine at Orono.

Political Organization.—Maine is divided into sixteen counties. Each county is divided into towns. There are, however, in addition, what are known as "plantations" and as "townships."

The so-called townships are usually unsettled. Plantations commonly comprise irregular tracts, sparsely settled. The inhabitants may elect certain officers and raise money for certain purposes.

Maine contains 20 cities, 437 towns, and about 70 organized plantations.

Government.

—The Executive Department consists of a Governor and Executive Council of seven members, Secretary of State, Treasurer, Attorney General, Commissioner of Agriculture, and Superintendent of Schools. The Governor is chosen every two years by popular vote. The chief officers are chosen by the Legislature, except the Superintendent of Schools, who is appointed by the Governor and Council.

The Legislature comprises a Senate of 31 members and a House of Representatives of 151. The Supreme Court consists of a Chief Justice and seven associates, each appointed by the Governor and Council for a term of seven years.

CITIES AND VILLAGES.

A straight line drawn across Maine from Houlton to Gilead divides the state into two fairly equal parts. The region south of this line contains more than three-fourths of the population, all the cities, and a large proportion of the villages of the state. These centers of population owe their location and prosperity either to the



Harbor of Portland, Maine.

proximity of a good harbor which affords facilities for commerce, or to falls in the neighboring river which make manufacturing comparatively easy and inexpensive.

I.—COAST CITIES.

Eleven of the twenty cities of Maine are situated on the coast or near the river mouths, and most of them have considerable coasting trade, as well as manufactures and fishing interests. Nearly all of them are connected both by steamer and rail with each other and with Boston.

Portland (population, 69,272), well situated on the west shore of Casco Bay, is the largest and most important city of Maine. Its harbor is of great depth, has easy and direct communication with the ocean, and is never entirely closed by ice.

The city has become one of the great railroad centers of New England. One line connects it with Montreal, Detroit and Chicago, and many others bring it into communication with all parts of New England, and with the chief cities in the country.

It has a large coastwise and a considerable foreign trade, and during the winter, when many of the ports of Canada are closed by ice, Portland becomes their chief Atlantic gateway of supply, steamships running directly thence to Liverpool, London, and Glasgow. There are excellent wharf facilities, two grain elevators, and fine warehouses. The value of the exports from and imports to the city each year is considerable. Dry docks make Portland an important station for ship repairing.

Its manufactures are many and varied, but among the most important are machinery of different kinds, lumber products, printed matter, clothing, confectionery and drugs. Portland has the largest wire screen factory in the world.

Portland has fine broad, well-shaded streets, beautified with parks, monuments, handsome residences and fine buildings, among which are the City Hall, Mechanics Hall, the Public Library, the Maine General Hospital, and the Maine School for the Deaf. In 1632, when first settled, it was called Casco, later Falmouth, and finally in 1786 it took its present name. It is famous as the birth-place and early home of the poet Longfellow.

South Portland (population 9,254) became a city in 1898. It is connected by bridge and ferry with Portland. Its chief industries are shipbuilding, fish curing and wood turning. **Westbrook** (population 9,453), six miles northwest of Portland, is a thriving manufacturing city whose chief products are lumber, boots and shoes, boxes, mineral waters, cotton warp and paper. The several islands and small peninsulas included in the town of **Harpwell** in Casco Bay, **Old Orchard**, and **Kennebunkport**, are famous summer resorts near Portland.

Kittery, opposite Portsmouth, has a considerable coast trade, and is the seat of a United States Navy Yard. Nearly a thousand business corporations have been organized here in recent years.

Biddeford (population 18,008) and **Saco** (population 6,817) at the falls of the Saco River, six miles from the sea, manufacture lumber, cotton goods and cotton mill machinery.

Bath (population 14,731) is situated on the west bank of the Kennebec, twelve

miles from the ocean, but has excellent facilities for commerce, a large coastwise trade, and steamer connection with Boston, Portland, and Bangor. The Bath Iron Works have a world-wide reputation, and there are large manufactures of steel and iron



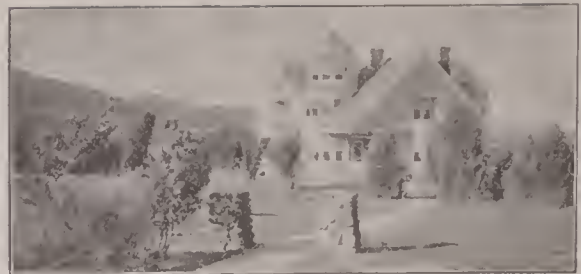
The beach, Old Orchard, Maine.

ships. The first American steel sailing ship was built here in 1898. In the last ten years Sagadahoc county has increased in population twenty four per cent.

Rockland (population 8,109), on Penobscot Bay, has a fine harbor and a considerable coastwise trade. It produces more lime than any other place in Maine.

and builds a good many ships. It manufactures also carriages, sails, and tools.

Steamers ply between Rockland and the summer resorts on **Mount Desert** and **Deer Island**. **Camden**, just north of Rockland, is beautifully situated on the bay. It has considerable shipbuilding and manufactures wool-lens, felts, anchors, and ship fittings. **Vinal Haven** exports immense quantities of granite.



A summer home at Camden, Maine.

Belfast (population, 5,083), on the west side of Penobscot Bay, has a good harbor, and carries on a considerable trade. Its manufactures of boots and shoes, lumber and machinery, its shipbuilding, and its quarrying of granite make it an important place. It has rail and steamer connection with Boston, Portland, and Bangor.

Ellsworth (population, 3,549), at the mouth of the Union River, is a port of entry with a considerable coastwise trade and large shipbuilding and granite industries. It also manufactures lumber, carriages, woollen goods, shoes, sash and doors, and sails.

Eastport (population, 4,961), the most easterly city in the United States, has an excellent harbor which is never ice-locked, and a considerable trade with Canada as well as with our own ports. It is the center of the domestic sardine and other kinds of canned fish business.

II.—CITIES ON NAVIGABLE RIVERS.

There are a number of cities in Maine that owe their importance to the advantages of being situated on navigable rivers and also near falls that supply water power.

Augusta (population, 14,114), the capital of the state and the sixth city in size, is situated on the Kennebec, forty miles from its mouth. It has direct

steamer communication with Boston and Portland, and is on one of the main railroad lines of the state. Falls in the river afford fine water power, and there are extensive manufactures of cotton goods, lumber, paper and pulp. The city makes a fine appearance, having a handsome



State House at Augusta.

granite State House, a fine court house, a government post-office, and a stately group of buildings for the State Insane Asylum.

Hallowell on the Kennebec, two miles below Augusta, has the finest granite quarries in the state, and manufactures glue, tools and boots and shoes.

Gardiner (population, 5,475), six miles below Augusta, has considerable manufactures of paper, lumber and boots and shoes. Boston and Bangor steamers stop at both Hallowell and Gardiner.

Bangor (population 25,978), the third city in size in the state, is well situated at the head of navigation on the Penobscot, down whose upper waters come enormous quantities of lumber. Much ice is shipped from here. The chief

manufactures are machinery, boots and shoes, cutting tools and butter and cheese. There is a large coastwise trade by steam and sailing vessels, and a daily passenger steamer to Boston. Bangor is the seat of a theological seminary of high repute.



Bangor, Maine, showing coasting vessels on the Penobscot River.

Brewer (population, 6,064), incorporated as a city in 1889, is situated on the Penobscot River opposite Bangor, with which it is connected by a fine bridge. It has a large planing mill, paper and pulp mills, saw-mills, and brick-making concerns.

Calais (population, 6,084) is situated at the head of navigation on the river St. Croix, a few miles from Passamaquoddy Bay. It is in a fine lumber district, has excellent water power, and is largely engaged in the manufacture and export of lumber. Calais also manufactures boots and shoes, has a foundry and machine shop, quarries red granite, and does considerable shipbuilding.

III.—MANUFACTURING CITIES.

There are a large number of cities in the state whose situation above the navigable part of the river, but on fine water power, makes them purely manufacturing. These cities send their products by rail either to near ports for export or to other cities for distribution.

Lewiston (population, 31,791), the second city in size in the state, is situated on the Androscoggin River, where there is a fall of 60 feet. Dams costing a million dollars have been built and the water is conveyed through canals to enormous cotton and woollen mills. The other great manufacturing establishments of the city are a bleachery and dye works and lumber factories. Brushes, files,



Spinning room, cotton factory, Lewiston, Maine.

looms, trunks, and machinery are also made here. Lewiston is the seat of Bates College, and has a fine public library.

Auburn (population, 16,985) is directly across the river from Lewiston, and is connected with it by railroad and passenger bridges. It shares with Lewiston the water power of the falls. Auburn makes more boots and shoes than any other place in the state and has extensive cotton factories.

South Berwick, a port village in York County, on the Salmon Falls River, has fine water power, and manufactures boots and shoes, lumber and mineral waters, and has quite extensive marble and granite works. It was settled in 1673 and called then the "Parish of Unity." Berwick Academy is located on land originally bought from the Indians.

Sanford (pop. 10,691) and **Springdale**, in York County on the Mousam, have good water power and extensive manufactures of carriage robes, alpacas, plush goods, worsteds and woollens, and large lumber and planing mills.

Rumford Falls (population, 8,576) is a progressive village on the Androscoggin, where the river falls 180 feet in less than a mile and turns the wheels of nearly a hundred mills and factories. The making of paper and pulp are the chief indus-

tries. The largest paper-bag factory in the world is located here, and all the United States postal cards are manufactured here.

Brunswick (pop. 7,261), on the lower Androscoggin, is the seat of Bowdoin College. It has good water power, and manufactures cotton, boots and shoes, boxes, and paper and pulp.

Waterville (population, 13,351) is a rapidly growing city in Kennebec County. The Taconic and other falls here give it good water. It has cotton and woollen mills, railroad shops, iron foundries, and wood-turning shops. It is the seat of Colby College and the Coburn Classical Institute. Just across the Kennebec, in **Winslow**, is one of the largest pulp and paper factories in the world.

Shoshogon (pop. 5,981), on the Kennebec, is the county seat and most important town of Somerset County. It manufactures woollens, oil cloths and shoes.

Farmington, on the Sandy River, is the seat of the Farmington Normal School. It is a popular resort for fishermen and hunters during the spring, and a growing summer resort. It has a large factory for turned goods.

Old Town (population 6,956), on the west bank of the Penobscot, is a thriving city with good water power and several saw and planing mills. It manufactures woollens, paper, shoes, shingles, canoes and fibre.

Orono is situated on the Penobscot, between Bangor and Old Town. It has pulp and paper mills and saw-mills. Here is located the University of Maine, which has connected with it the Maine Agricultural Experiment Station.

Millinocket, in Penobscot County, is the home of the Great Northern Paper Company, and manufactures lumber also.

IV.—CITIES IN THE AROOSTOOK REGION.

Describe the soil and climate of this part of the country (page 8).

Fort Fairfield, on the Aroostook River, is in the heart of the potato belt and the shipping center for this part of the country: in fact, potato shipping is one of its chief industries.

It also manufactures barrels, long and short lumber, shingles and staves and starch in large quantities, and is a thriving and progressive town. It supports a high school and several churches.

Houlton (population 6,191), in Aroostook County, is a flourishing town and the railroad center for this part of the state. It exports potatoes in large quantities, and manufactures starch. It has also an iron foundry and saw-mills, and manufactures lumber products and woollen goods.



A potato crop raised on the town farm in Caribou, Maine.

MAP STUDIES.—NEW HAMPSHIRE.

Size and Position.—Measure by the scale of miles the greatest length of New Hampshire. The greatest width. About how many miles of seacoast has the state?

Boundaries.—What states on the east, west and south? What country north?

Surface.—What part of New Hampshire is mountainous? What range of mountains in the northern half of the state? What is the highest peak of the White Mountains? Name six other peaks near Mt. Washington. What are these called? Name three peaks in the northern part of Grafton County. What mountains between Grafton and Carroll counties? Where are the Blue Hills? Mount Monadnock? Mount Kearsarge? What five rivers drain the state? Where does the Connecticut rise? The Merrimack? The Androscoggin? The Saco? What two rivers unite to form the Piscataqua? What large lake in central New Hampshire? Where is Lake Ossipee? Squam Lake? Great East Pond? What river rises in Great East Pond? Which lake of the Rangeley group is in both Maine and New Hampshire? Where is Connecticut Lake?

Counties.—How many counties has New Hampshire? Which of them border on Massachusetts? On Maine? On the Connecticut? Which county has seacoast? What counties are in the interior of the state? Bound the county in which you live.

Cities and Towns.—What is the capital? Where is it located? Locate Manchester, Nashua, Dover, Berlin, Portsmouth, Laconia, Keene, Rochester, Claremont, Somersworth, Franklin, Exeter, Lebanon, Derry.

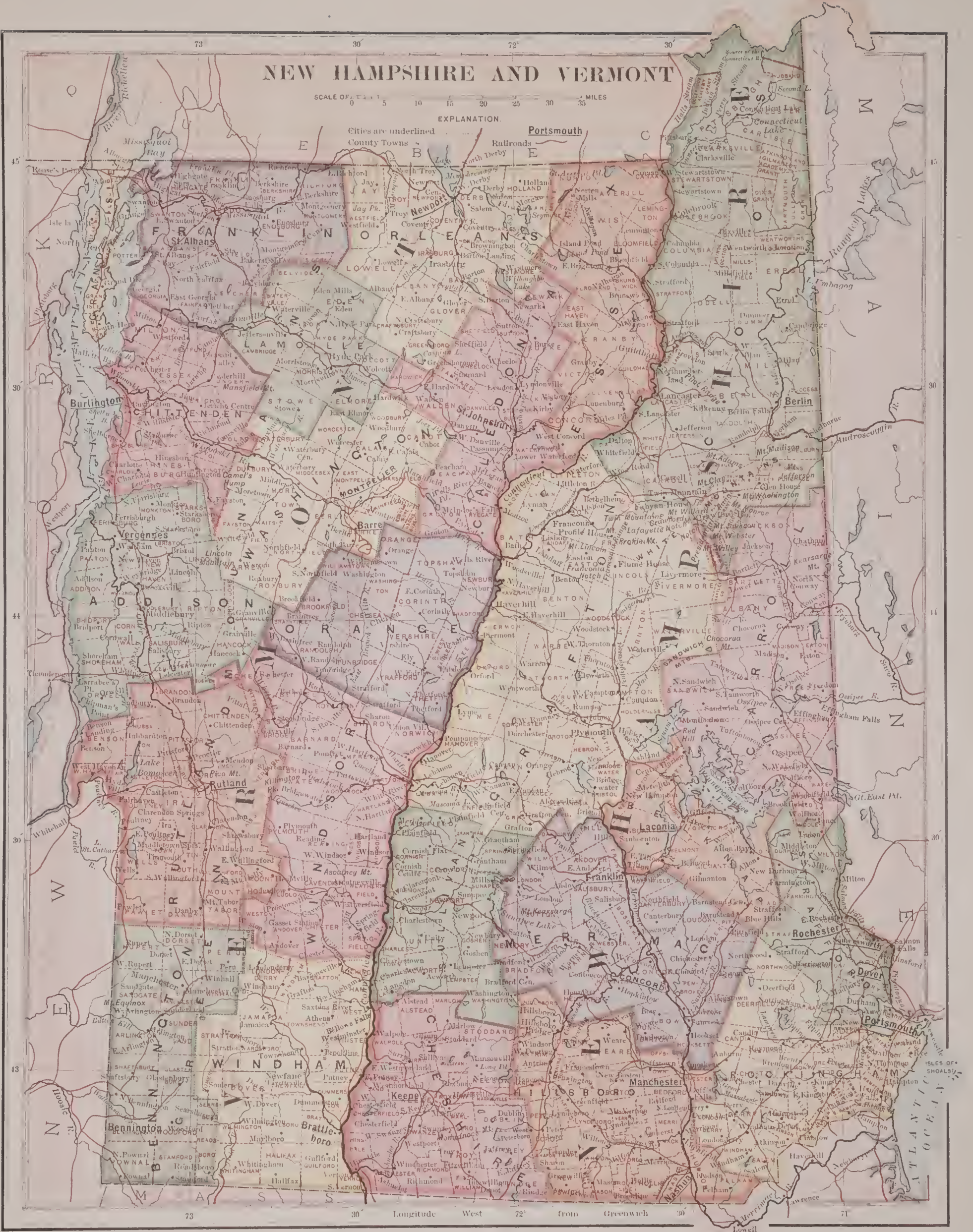
MAP STUDIES.—VERMONT.

Size and Position.—What direction from New Hampshire is Vermont? How does it compare in size with New Hampshire? What is its greatest width? Its greatest length? What country on the north? What states bound it? What natural boundary on the east? On the west? What is the latitude of the northern boundary?

Surface.—What mountains extend the entire length of the state? What is the general direction of the Green Mountains? In what county is Mount Mansfield? Killington Peak? Camel's Hump? Lincoln Mountain? Jay Peak? The northwestern part of the state is drained into what body of water? Name four rivers which flow into Lake Champlain. In what county does each of them rise? The eastern part of the state is drained by what river? Name four of the longest branches of the Connecticut in Vermont. Into what river is the southwestern part of the state drained? What lake lies across the northern boundary? Into what river does Lake Memphremagog finally drain? All the rivers of Vermont finally reach what ocean? What other lake in Orleans County? In Rutland County? What islands in Lake Champlain?

Counties.—What counties border Canada? The Connecticut River? Lake Champlain? New York? Massachusetts? Name the interior counties. Bound the county in which you live.

Cities, Towns, and Villages.—What and where is the capital? Locate Burlington, Rutland, Barre, Bennington, St. Johnsbury, Brattleboro, Colchester, St. Albans, Rockingham, Bellows Falls, Springfield, Winooski.



NEW HAMPSHIRE.

New Hampshire.—Area, 9,341 square miles. Population, 443,083.

Surface.—The central portion of New Hampshire is a part of the mountainous region of New England, and is occupied by a number of short, high ranges which, taken together, are called the White Mountains. Mount Washington (6,288 feet), the loftiest mountain in New England, together with Mounts Adams, Jefferson, Monroe, Clay, and Madison are the highest peaks of the Presidential Range.



The Flume, Franconia Notch, New Hampshire.

Separated from this range by deep river valleys, or notches which were scoured out by the glacier, are on the west the Franconia Range, which forms the watershed between the Merrimac and Connecticut rivers; on the north the Pilot Range, and on the south several small, lower ranges. All of these ranges contain many small, high peaks famous for their beauty.

South of the White Mountains the upland gradually diminishes toward Massachusetts and toward the ocean. Throughout the upland are a number of scattered peaks of which Mount Monadnock and Kearsarge are the highest.

North of the White Mountains, Coos County is rugged and hilly, with an average elevation of considerably more than 1,000 feet.

About the only lowland in the state is a strip near the sea between twenty and thirty miles wide, where there are low salt marshes, and back of these a slightly rolling low plain. As in Maine, so in New Hampshire, numerous lakes are found in various parts of the upland, the largest of which are Winnepesaukee, Squam and Sunapee.



Echo Lake and Mt. Lafayette, Franconia Notch, New Hampshire.

The rugged beauty and fine bracing air of the White Mountains, the picturesqueness of the lake regions, and the fine ocean breezes have given New Hampshire a national reputation as a summer resort. Thousands of people visit mountains, lakes, and shores each summer. Probably no other

state in the Union has so large an influx of summer visitors

The most famous of the resorts are Crawford and Franconia notches, Fabyan, Twin Mountain, Mount Pleasant, Jefferson, Bethlehem, North Conway, the neighborhood of Mounts Kearsarge and Monadnock; Winnepesaukee, Squam, and Ossipee Lakes, and Hampton and Rye beaches.

Coast.—The Atlantic coast of New Hampshire is only about eighteen miles long, and has but one important harbor, that of Portsmouth. A part only of the small group of islands, known as the Isles of Shoals, belongs to New Hampshire.

Drainage.—The entire western part of the state is drained by the Connecticut River, which has a great many short tributaries flowing into it from the highlands of western New Hampshire.

There are in the upper Connecticut and its tributaries falls and rapids whose waters turn many mill-wheels. A great deal of lumber is floated down the tributaries of the upper Connecticut to the lumber mills on its banks.

The Merrimac drains the central and southern part

of the state. For what is it famous? (p. 2.) A large part of the population of the state is gathered into the towns and cities in the Merrimac Valley. The rest of the state is drained by the Androscoggin, the Saco, and the Piscataqua and Salmon Falls rivers. The Piscataqua and the Cocheco, for a short distance, are the only navigable rivers in the state.



*Contoocook River above Hillsboro, New Hampshire.
(Photo. loaned by Boston and Maine Railroad.)*

Agriculture.—The rugged uplands of the state are not well fitted for general farming, but make good pasture and hay lands. The soil just back from the coast and in the river valleys is fertile, and yields good crops of hay, potatoes, corn and oats. The raising of small fruits and peaches, pears and plums is profitable in Hillsboro, Rockingham, Merrimac, and Cheshire counties. Apples are grown in every county of the state. There are fine dairy farms and creameries on the terraces of the Connecticut Valley.

The forests are a continuation of those of Maine. How does the state protect its forests? (p. 4.) The timber and lumber industry yields the state about fifteen million dollars annually.



A hay farm, southwest New Hampshire.

Minerals.—Granite, the most important building stone of the state, is quarried in various places. Clays suitable for brick abound. Mineral waters, scythestones and mica are obtained.

Manufactures—The products of the many mills and factories in the state are five times as valuable as the agricultural industries. The chief and most profitable manufactures are boots and shoes, cotton, woollen and worsted goods, lumber and paper, machinery, hosiery and knit goods and flour. Eight of the ten most important manufacturing cities are situated in the southeastern part of the state. They are Manchester, Nashua, Dover, Concord, Portsmouth, Rochester, Somersworth and Exeter. Keene is the most important city of the southwest, and Berlin and Laconia are important manufacturing centers.

Commerce and Transportation.—The commerce from Portsmouth is not extensive. The state is well supplied with railroads. The manufactured products of the state are carried south—to Boston chiefly, from which port they are exported.

Education.—The educational system of New Hampshire is under the direction of the State Superintendent of Public Instruction. There are State Normal Schools at Plymouth and Keene.

Foremost among the academies and schools of the state, preparatory to college, is Phillips-Exeter Academy, of Exeter, founded in 1781. Of very high rank also is St. Paul's School, of Concord.

Other schools of this class are Kimball Academy Union, of Meriden; the Literary and Scientific Institution, of New London; the Literary and Biblical Institute, of New Hampton; New Hampshire Conference Seminary and Female College of Tilton; the Robinson Female Seminary, of Exeter; St. Paul's and St. Mary's schools, of Concord; and the Holderness School for Boys, of Plymouth.

The most important college of the state is Dartmouth, at Hanover, founded in



Dartmouth College, Hanover, New Hampshire.

1769. Besides the College of Liberal Arts, it has connected with it the Thayer School of Civil Engineering and the Dartmouth Medical School.

The New Hampshire College of Agriculture and the Mechanic Arts is situated at Durham.

Political Organization.—New Hampshire is divided into ten counties. The state in 1920 contained eleven cities and two hundred and twenty-eight towns. There are also "locations," "grants," "purchases," and "plantations" in the northern counties, which correspond to the townships and plantations described in Maine.

The gain in population which has accrued since 1860 has been almost wholly in the three manufacturing counties of Hillsboro, Merrimac, and Strafford, and in Coos County.

Government.—The Executive Department consists of a Governor and Council of five members, chosen by popular vote every two years; also a Secretary of State, Treasurer, Attorney-General, and Superintendent of Public Instruction. There is also an Adjutant-General appointed by the Governor.

The Judiciary Department consists of a Supreme Court, having a Chief Justice and four associates; a Superior Court, having a Chief Justice and four associates; and a Probate Court in each county. All judges are appointed by the Governor and Council.

CITIES AND TOWNS.

I.—CITIES ON THE MERRIMAC.

The largest and most important cities in the state are situated on the Merrimac and its tributaries, where magnificent water power is available and where railroads have been extensively built.

Manchester (population, 78,384), in Hillsboro County, is the chief city of the state, and one of the most important of the textile manufacturing cities of the United States. It is built on a plain ninety feet above the Merrimac, and where



State House, Concord, New Hampshire.

with the Merrimac. It has large manufacturing industries, especially of shoes, cotton goods, paper bags and boxes, furniture, and machine-shop and foundry products. It has extensive railway connections.

Goffstown, Milford, and Peterboro, in Hillsboro County, have manufactures of considerable importance. **Goffstown** has a large sash and blind factory, and manufactures other lumber products. **Milford** has granite quarries of importance, and manufactures cotton and cotton thread, boxes, harness, and carriage trimmings, furniture, post-office outfits, baskets and woodenware. **Peterboro** makes thermometers and barometers and cotton and woollen goods. **Derry** (population 5,382), in Rockingham County, manufactures shoes, carriages, and gas machines, and also has large dairying interests. **Pembroke**, in Merrimac County, has large print cloth factories.

Concord (population, 22,167), on the Merrimac River, in Merrimac County, the third city in population, is the capital of the state. The State House, the State Library, the City Hall, and the State Asylum for the Insane are the principal public buildings. It is noted for its manufacture of carriages and for its dressed granite. Among its other manufactures are leather belting and hose, cotton and woollen goods, harness and machinery.

Pittsfield, on the Suncook River, fifteen miles from Concord, is a flourishing town, having large manufactures of cotton goods and boots and shoes.

Franklin (population, 6,318), at the head of the Merrimac, is noted for being the birthplace of Daniel Webster. It has excellent water power, and manufactures paper and paper boxes, needles, saws and woollen goods.



Main Street, Nashua, New Hampshire.

Laconia (population, 10,897), the county seat of Belknap County, is situated on the Winnepesaukee River, just below the mouth of the lake, and is a busy manufacturing city. It has foundries and machine shops, and manufactures enormous quantities of hosiery, also knitting machines, paper boxes and lumber.

Wolfboro, in a beautiful situation on Lake Winnepesaukee, is a famous summer resort. It has also saw-mills and woollen mills.

II.—CITIES ON SALMON FALLS AND PISCATAQUA RIVERS.

A number of important manufacturing cities and towns have grown up on the Salmon Falls and Piscataqua Rivers.

Portsmouth (population 13,569), situated at the mouth of the Piscataqua River, is the only seaport in the state. It has one of the most ample and secure harbors on the Atlantic coast, which it shares with Kittery, in Maine. There is some general coastwise trade, and considerable coal is brought in to be distributed throughout the state. The chief manufactures are machinery, and boots and

the Amoskeag Falls furnish a vast water power, which is utilized principally for the production of boots and shoes, cotton and woollen goods. This city has the largest separate building for looms in the world. Machinery, steam fire-engines, and paper are also extensively manufactured.

The city is on one of the main railroad lines, and is the terminus of several others, so that it has good railroad connection with all portions of the state and with all the rest of New England.

It is well laid out with broad streets, several public parks, and it has a fine system of water-works. It supports such institutions as a Reform School and a public library.

Nashua (population, 28,379), also in Hillsboro County, is on the Nashua River, near its junction



Amoskeag Falls, Manchester, New Hampshire.

shoes. The city is a beautiful one, alike in its streets and its buildings, both private and public.

Exeter (population, 4,604), on the Exeter River, is situated in the rich agricultural plain just back of the sandy coast strip. It is the seat of Phillips-Exeter Academy and Robinson Seminary, and has quite extensive manufactures of cotton goods, iron, shoes, paper, brass, and wooden boxes.



Congress Street, Portsmouth, New Hampshire.

Dover (population, 13,029), at the head of navigation on the Cochecho River, is well situated for trade and manufactures. The river here has a direct fall of thirty-two feet. Its chief manufactures are cotton goods, machinery and boots and shoes. Dover is the oldest town in the state of New Hampshire, having been settled in 1623.

Somersworth (population, 6,688), a city of Strafford County on Salmon Falls River, has abundant water power and extensive manufactures of cotton and woollen goods and boots and shoes. The business portion of the city was formerly known as Great Falls.

Rochester (population, 9,673), a thriving city of Strafford County on the Cochecho River, is an important railway center. Its varied manufactures include blankets, flannels, boots and shoes, and bricks. **New Market**, in Rockingham County, manufactures cotton and silk goods.

Farmington, situated on the Cochecho River, has manufactures of boots and shoes, wooden and paper boxes and shoe patterns and lasts.

III.—CITIES ON THE CONNECTICUT AND ITS TRIBUTARIES.

The Connecticut and its tributaries furnish water power used by many towns along their banks for manufacturing purposes.



*Mt. Monadnock, from Keene, New Hampshire.
(Photo loaned by Boston and Maine Railroad.)*

Winchester, on the Ashuelot River, has a tannery and manufactures woollens and boxes. **Walpole**, a summer resort of Cheshire County, is well situated on the Connecticut River, which is bridged here. It manufactures weighing machines and gas engines. **Newport** has extensive manufactures of flannels, muslin underwear, boots and shoes and scythes.

Claremont (population 9,524), on the Sugar River, near the Connecticut, has a considerable reputation as a summer resort, and large manufactures of paper, wool, boots and shoes and machinery.

Lebanon (population 6,162), on the Mascota River, has extensive water power and manufactures woollen goods, also watchmakers' tools and hand saws. Hanover, just north of Lebanon, is the seat of Dartmouth College. **Haverhill**, on the Connecticut and on the main railroad line which connects eastern New England with the large cities of Canada, is a flourishing place. It manufactures paper, scythe-stones, and lumber, and has a large creamery. **Lisbon**, a post village of Grafton County, on the Mink River, manufactures boxes, bobbins, shoe pegs and boots and shoes. **Littleton**, on the Connecticut, in Grafton County, is a growing summer resort and a busy manufacturing town. It turns out gloves, shoes, stereoscopic views, whetstones and oil stones. **Lancaster**, in Coos County, manufactures butter, and has large machine shops.

IV.—Berlin, the largest city of northern New Hampshire, is situated on the Androscoggin River. It has extensive lumber, paper and pulp mills, and manufactures boots and shoes (population, 16,104).

Conway, in Carroll County, has a beautiful situation on the Saco River. It is a summer resort, and has quarrying and manufacturing interests.

VERMONT.

Vermont.—Area, 9,564 square miles. Population, 352,428.

Surface.—The surface of Vermont consists of mountains and uplands, with no extended plain region. The Green Mountains, which extend throughout the entire length of the state, are a part of the Appalachian Mountain system, and are continued in Canada to the northeast. In the northern part of the state the mountains east of the Champlain Valley form two distinct ranges.

The highest peak in the state is Mount Mansfield (4,430 feet). Killington Peak, Camel's Hump, and Jay Peak are each over four thousand feet high. Name other single peaks in the state.



*Mt. Mansfield, from Walden, Vermont.
(Photo. loaned by Boston and Maine Railroad.)*

The mountains of Vermont are not so rugged looking as those of New Hampshire. They are rounder topped and covered, in many cases quite to their summits, with forests or grass.

Drainage.—The valleys of the Connecticut River and Lake Champlain are the two greatest drainage basins of the state. The longest rivers are those which flow into Lake Champlain. They all rise to the east of the mountains and cut their way through the ridges over many falls. The flood plain of the Connecticut has broad, terraced sides which make excellent farm lands.



Burlington, showing also Lake Champlain and the Adirondack Mountains in the distance.

The southwestern part of the state is drained into the Hudson by the Hoosie and Batten Kill Rivers with their branches. Most of Orleans County is drained by Lake Memphremagog, which reaches the St. Lawrence by the St. Francis River.

Lakes.—Vermont has several hundred small lakes and ponds within its borders, besides the two large lakes which form part of the boundary. Of these two lakes Champlain is the most famous and useful. It is 120 miles in length and is traversed by considerable commerce. Lake Memphremagog and the many lakes within the state are noted for their clear water and beautiful scenery, and

together with the mountains of the state attract thousands of summer visitors.

Agriculture.—Agriculture is the chief occupation of the people of Vermont. The river valleys have rich soil and yield good returns to the farmer, and the hills and gently-sloping mountain sides afford fine pasturage.



Collecting sap from maple woods, Vermont.

The farms of the Connecticut and Lake Champlain valleys produce hay and forage, potatoes, oats, corn, fine apples and pears, and small fruits, especially strawberries. The dairying industry yields considerable revenue, and more than half the farms of the state obtain returns from dairy products. There are a large number of livestock farms in the state where cattle and horses of fine breeds are raised to be sent to different parts of the country.

What trees are found in the forest regions of Vermont? (p. 4.) Orleans, Franklin, Caledonia, and Lamoille are leading counties in the production of maple sugar. Burlington is one of the chief lumber markets of New England.

Minerals.—How does Vermont rank as a marble producing state? (p. 4.) Beside the Rutland County quarries, beautiful colored marbles are obtained from the islands on Lake Champlain and in Franklin County. Rutland County has also extensive slate quarries, and some slate is quarried in Washington and Windham counties. Vermont is also the first state of the Union in the production of granite. The largest granite quarries are in Washington County, near Barre. Windsor County has marble quarries, besides extensive soapstone quarries. Clays, sand, gravel, and spring waters are also obtained.

Manufactures.—Because Vermont has no seacoast and until quite recently it was difficult to get raw products, therefore, manufacturing is not yet of the first importance in the state, as it is in the other New England States. Where twenty per cent. of the people of New Hampshire are engaged in manufacturing, less than one tenth of the people of Vermont are so employed.

Marble and stone work, butter, cheese, and condensed milk, woollen goods, flour, paper and pulp, machinery, knit goods, furniture, drugs, clothing, and railroad car construction and repairs are the chief manufactured



Marble quarry, Proctor, Vermont.

products of the state.

Commerce and Transportation.

Vermont having no seacoast has no ocean commerce, but has a considerable trade with Canada and New York by way of Lake Champlain. Several lines of railroad cross the state from east to west, and there are direct lines to Boston and New York and to Montreal and Quebec.



State House, Montpelier, Vermont.

Political Organization.—Vermont is divided into fourteen counties, which contain two hundred and sixty-six towns, and seven incorporated cities: Montpelier, Burlington, Rutland, Vergennes, Barre, St. Albans and Newport.

Government.—The Executive Department of the state consists of a Governor, Lieutenant-Governor, Secretary of state, Auditor, Treasurer, and Attorney General.

The legislature, under the title of the General Assembly, consists of a Senate of thirty members and a House of Representatives with one member from each town and city.

The Judiciary consists of a Supreme Court, with a Chief Justice and four associates, and County, Probate, Insolvency, Chancery, and Police Justice Courts. The judges are chosen, once in two years, by the General Assembly, and are usually reelected throughout their lives.

Education.—The public school system of Vermont is under the direction of the State Superintendent of Education, who is appointed by the State Board of Education.

There are two State Normal Schools for teachers located at Castleton and Johnson.

The University of Vermont and State Agricultural College, at Burlington; Middlebury College, at Middlebury; and Norwich University, at Northfield, are educational institutions of reputation.

Among others are the St. Johnsbury Academy; the Montpelier Seminary; Goddard Seminary, at Barre; Troy Conference Seminary, at Poultney; Vermont Academy, at Saxton's River; Brigham Academy, at Bakersfield; Burr and Barton Seminary, at Manchester.



Quarry showing channelling machine at work. Alberton Quarry, West Rutland, Vermont.

CITIES AND TOWNS.

I.—CITIES AND TOWNS IN THE CHAMPLAIN VALLEY.

Vermont having no seacoast the commerce of the state centers around Lake Champlain, which is connected with Albany and the West by means of a canal from Whitehall at the southern end of the lake, and with the St. Lawrence by means of the Richelieu River. The Champlain Valley is a rich agricultural region.

Burlington (pop. 22,779), the chief city on Lake Champlain, is also the largest and most important city of Vermont. It is one of the most beautiful of the smaller cities of the United States, and is a popular summer resort. It has an admirable harbor for coasting-trade purposes, which, with ample railroad connection, gives it considerable commerce. It is one of the largest lumber markets in the United States, and carries on a large distributing trade. It manufactures lumber, clothing, cotton and woollen goods, furniture, and photographic materials.



South Union Street, Burlington.

State, is in Washington County, on the Winooski River, where there is good water power. It has extensive granite works, and manufactures harness trimming, wood-work, and machinery. It is an important railroad, business, and financial center.

Barre (pop. 10,008), about five miles from Montpelier, is famed for its extensive quarries of fine granite. More than a hundred firms are engaged in quarrying and manufacturing granite.

Northfield is beautifully situated among high hills. It manufactures woollen goods, and has a corn-canning establishment, a fine slate quarry, and large granite sheds. **Waterbury**, also in Washington County, has manufactures of machinery, granite, and lumber.

Vergennes (pop. 1,773), in Addison County on Otter Creek, is said to have been the first city incorporated in New England (1788). It is at the head of navigation, and manufactures horseshoe nails, furniture, and road machines.

Middlebury, also on Otter Creek, has abundant water power and quarries of fine white and variegated marble. It produces also kaolin and ochre. It manufactures marble, lumber, and tale.

Rutland (pop. 14,954), the second city in size in the State, is situated in the mountains of Rutland County, and is an important railroad and business center. It has vast and valuable quarries of the finest marble, and manufactures scales, farm implements, boilers, engines, and clothing.

West Rutland and **Proctor** have extensive marble works. **Poulet**, **Poultney**, and **Fairhaven**, also in Rutland County, are centers of slate manufacture.

St. Albans (pop. 7,588), in Franklin County, is in a rich farming region, and is famous for creamery products. It also manufactures clothing, has extensive railroad car and repair shops, and a large trade in agricultural produce.

Richford, in Franklin County, manufactures furniture, veneering, and other lumber products. It also has important agricultural and dairying interests. **Hardwick**, in Caledonia County, manufactures granite, lumber and flour.

II.—TOWNS IN THE CONNECTICUT VALLEY.

There are quite a number of towns in the Connecticut Valley which use the water power of the many falls and have manufactures of importance.

Brattleboro (pop. 8,332) in Windham County, on the Connecticut River, is one of the most charming towns in New England. It is on one of the main railroad lines of the State, and is the seat of the largest organ factory in the world. It has also extensive manufactures of machinery, carriages, furniture and clothing, and has marble-cutting works.

Rockingham (population 6,231) including Bellows Falls village, is a railroad center and a center for the manufacture of paper and paper pulp, and farm and dairy implements.



Newport, Vermont, and Lake Memphremagog.

Springfield (pop. 7,202), on the Black River, where there is a fall of about 100 feet, manufactures lathes of various kinds, machinery, foundry work, and shoddy.

Woodstock, in Windsor County, manufactures lumber, flour and iron. **Hartford**, also in Windsor County, manufactures woollen goods, lumber, and chairs. **Morris-town**, in Lamoille County, manufactures leather and boxes.

Newport, on Lake Memphremagog, has a large creamery, and manufactures lumber and veneer. It is a noted summer resort, and has steamer communication with other towns on the lake. **Barton**, in Orleans County, manufactures farm wagons and furniture. **Derby** manufactures creamery products. **Randolph**, in Orange County, has wood-working industries.

St. Johnsbury (pop. 8,708), on the Passumpsic River, is the chief industrial and trade center of northeastern Vermont. It has a large scale manufactory, and manufactures lumber, soap, machinery, and agricultural implements. It has an academy of reputation, Public Library, Museum of Natural Science, and an Art Gallery.

Lyndon, in Caledonia County, is in a farming district, and manufactures lumber.

III.—**Bennington** (pop. 9,982), in Bennington County, is a distributing center for a rich agricultural district in the Hoosac Valley. Beds of kaolin and ochre occur in its vicinity. It has also manufactures of woollens, knitted goods, and knitting machines. Near it General Stark and the Green Mountain boys, with troops from Massachusetts and New Hampshire, defeated the Hessian troops in the Revolution.

MASSACHUSETTS.

Massachusetts. — Area, 8,266 square miles. Population, 3,852,356.

Surface.—The western part of the state belongs to the Appalachian Mountain region, and is crossed by two low mountain ranges, the Taconic on the extreme west, and the Hoosac parallel to and east of it. These ranges are continuations of the Green Mountains at a considerably lower height. The Taconic Mountains have their highest peak in Mount Graylock (3,505 feet), which is the loftiest mountain in the State. The Hoosac highland is not as high as the Taconic. It extends east to the Connecticut Valley. Hoosac Mountain has been pierced by a railroad tunnel five miles in length, which connects the Deerfield with the Hoosac Valley. This gives the northern part of the State easy communication with central New York and the West.

East of the Connecticut River, the upland extends almost to the coast. The western part of the upland is not more than 800 feet above sea level, and it sinks rapidly toward the east. The highest single peaks left standing on the upland are Wachusett Mountain



Scale Factory, St. Johnsbury, Vermont.



West entrance to Hoosac Tunnel.

(2,108 feet), Watatic Mountain, and Grace Mountain. The Blue Hills just south of Boston are on the eastern rim of the Piedmont region, with an elevation of about 600 feet.



Sand dunes at Cape Cod.

Between these two highland regions lies the broad valley of the Connecticut. It is crossed just below the middle of the state by a hard ridge of trap rock which stands, comparatively unweathered, above the surrounding lowland of the valley. This ridge is known as the Holyoke Range. Mount Tom and Mount Holyoke belong to this range.

Describe the formation and appearance of the coastal plain of southeastern Massachusetts (pages 2 and 6).

In all parts of the state are found lakes which are remnants of the glacial time.

The Coast.—When the Atlantic Plain sank and the sea invaded the valleys near the coast, Massachusetts was left with a very irregular coast line, consisting of rocky headlands and beaches. The headlands are being slowly worn away by the power of the sea, and beaches and bars are being formed by the accumulation of waste from the headlands. Many shallow seas back of the bars have been converted into salt marshes.

The peninsulas of Cape Cod and Cape Ann are the most prominent features of the coast. Cape Ann is a bold rocky headland which has long resisted the force of the sea. North of it the coast stretches



Cape Cod.

back in a series of beaches and salt marshes. South of Cape Ann the coast recedes westward to Boston, with sometimes bold headlands as at Marblehead, and sometimes good harbors as at Gloucester, Salem, and Lynn. The city of Boston is in a basin, and its hills, as well as the level parts of the city and many of the islands in the harbor, are composed of glacial debris. The depression in which Boston is situated, as well as some of the islands in the harbor, is composed of debris dropped by the melting glacier. South of Boston the coast to Scituate is rocky, with many submerged ledges. Find Minots Ledge. Its lighthouse is one of the most famous in the world, and the ledge one of the most dangerous. The small penin-



Marblehead Neck.

sulas of Nahant, Winthrop and Nantasket were once islands, but are now connected with the mainland. South of Nantasket and around to Cape Cod the coast is low and sandy. The eastern coast of Cape Cod peninsula consists of sandy, ocean-worn cliffs. The southern coast, being more protected from the wear of the ocean by adjacent islands, has a rocky, unworn shore.

Drainage.—The valley of the Connecticut in northern Massachusetts is about three miles wide, but farther south it increases in width, until at the southern boundary of the state it is between fifteen and twenty miles. Over the ridges of hard trap rock which cross the valley in various places falls are formed. Find Miller's Falls, Turner's Falls, Chicopee Falls. There is magnificent water power at Holyoke. For what is the Merrimac famous? The rivers of Massachusetts, like those of the rest of New England, are rarely navigable, but are of great value to the state for water power.



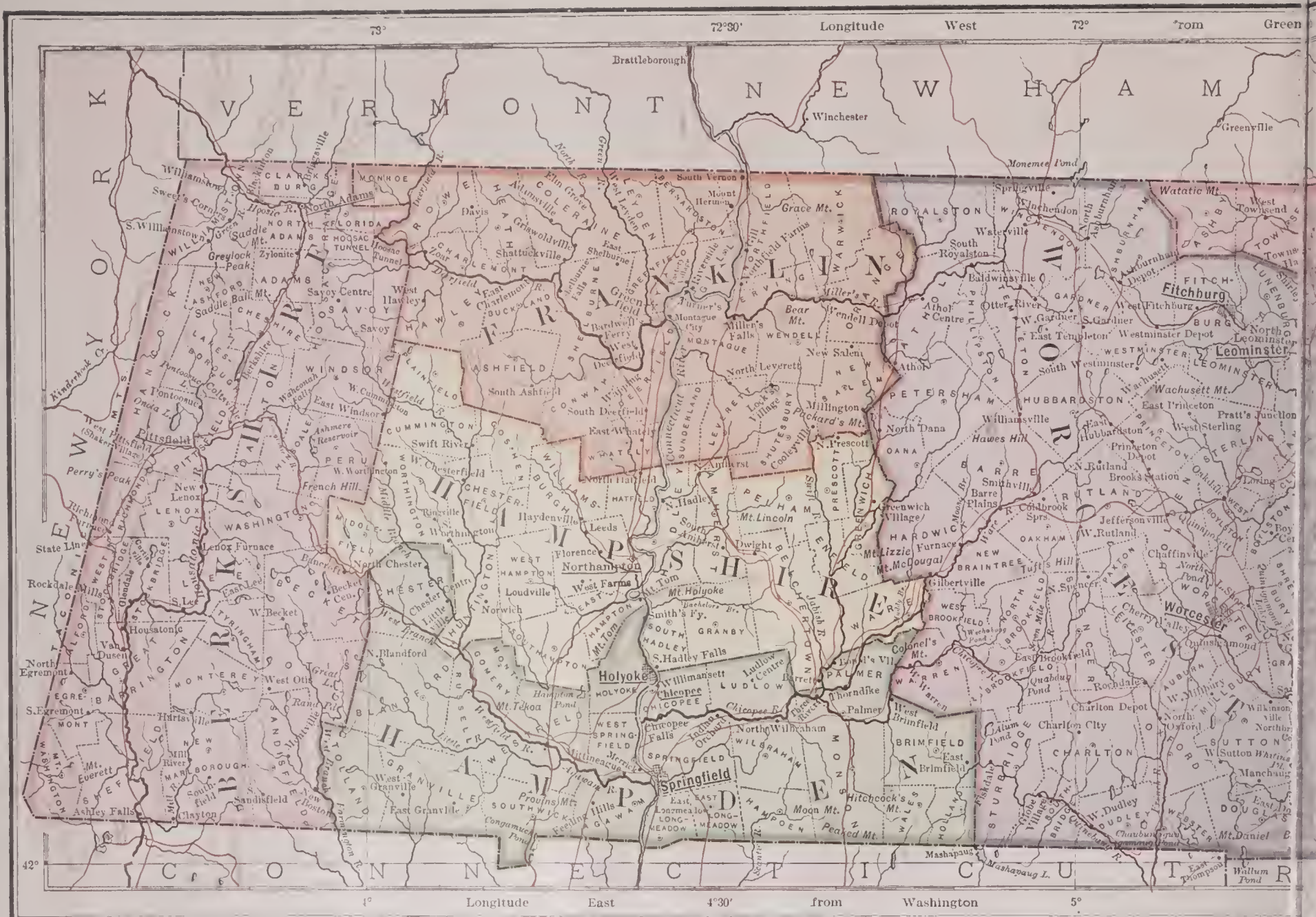
Westfield River, East of mountains.

Agriculture.—The soil of the uplands of western Massachusetts is not very fertile, but much of it is well adapted to grazing. Throughout the uplands of the central part of the state fairly good crops are obtained if the farms are well fertilized. Eastern Massachusetts is sandy and not very fertile, but there is much market gardening near the big cities. In the bogs of Barnstable and Plymouth cranberries yield profitable returns. The richest agricultural regions of the state are the Connecticut and Housatonic Valleys, where large crops of hay, tobacco, corn, and fruit are raised. As in other parts of New England, general farming is decreasing, and farmers are turning their attention to dairying, poultry raising, and market gardening. Near the cities the cultivation of flowers is exceedingly profitable. Massachusetts depends for its cereals and meat upon the West, and is not important agriculturally.

Manufactures.—As a manufacturing state Massachusetts ranks first in New England and fourth in the country, only New York, Pennsylvania and Illinois standing ahead of it. Twenty-two per cent. of the people are employed in factories and mills. The state takes first rank in the manufacture of boots, shoes, woollen, worsted, felt, and linen goods, cordage and twine, and in dyeing and finishing of textiles. Other leading manufactures are machinery, printed matter, packed meat, and paper. The ten greatest manufacturing cities are Boston, Worcester, Lowell, Lawrence, Fall River, Lynn, Cambridge, Brockton, Holyoke and New Bedford.



Gloucester, Massachusetts.



MAP STUDIES.

Size and Position.—Measure by the scale of miles the length of Massachusetts just north of the forty-second parallel. Along the seventy-second meridian. Which states of New England are larger than Massachusetts? Which are smaller? What states of the Union are about the same size? What European countries are in about the same latitude as Massachusetts? What city of southern France is in about the same latitude as Boston? What states of the Union are in about the same latitude?

Boundaries and Islands.—What states adjoin Massachusetts on the north, west and south? What ocean east? What bays indent the coast? What two large islands south? What sound is enclosed by these islands? What channel between them? What islands west of Martha's Vineyard? What sound between Martha's Vineyard and the Elizabeth Islands? Where is Cape Ann? Cape Cod?

Surface.—What three regions are represented in the surface? What part of the State is occupied by the mountains? By the Atlantic plain? By the coastal plain? What range of mountains forms the western boundary? What range east of the Taconic Mountains? Where is Mount Tom? Mount Holyoke? Mount Greylock? Mount Wachusett? Mount Watatic? Saddle Mountain?

Drainage.—How many drainage regions are represented in Massachusetts? What

is the general direction of the Connecticut in the state? What counties do it enter? What are its two largest branches on the east? In what county do Miller and Chicopee River rise? What are the two longest branches of the Connecticut west? In what state does the Deerfield rise? In what range does the Western branch of the Hudson rise? Northwestern Massachusetts is drained by what river? The Merrimack? What does the Housatonic empty? What river in northeastern Massachusetts? Where does the Merrimack rise? What is its chief branch on the south? The Charles? The Neponset? The Taunton?

Counties.—Which county occupies the western end of the state? Which border Vermont and New Hampshire? Connecticut and Rhode Island? Which counties on the ocean? Which county is a peninsula? Which counties are in the interior of the state? Which counties border the Connecticut? Bound the county in which you live.

Cities.—What and where is the capital? What four cities on the Connecticut? Locate Worcester. In what direction from Boston and on what are Ipswich and Gloucester? What three large cities in Bristol County? Where is Springfield? What two large cities on the Connecticut? Where are Cambridge and

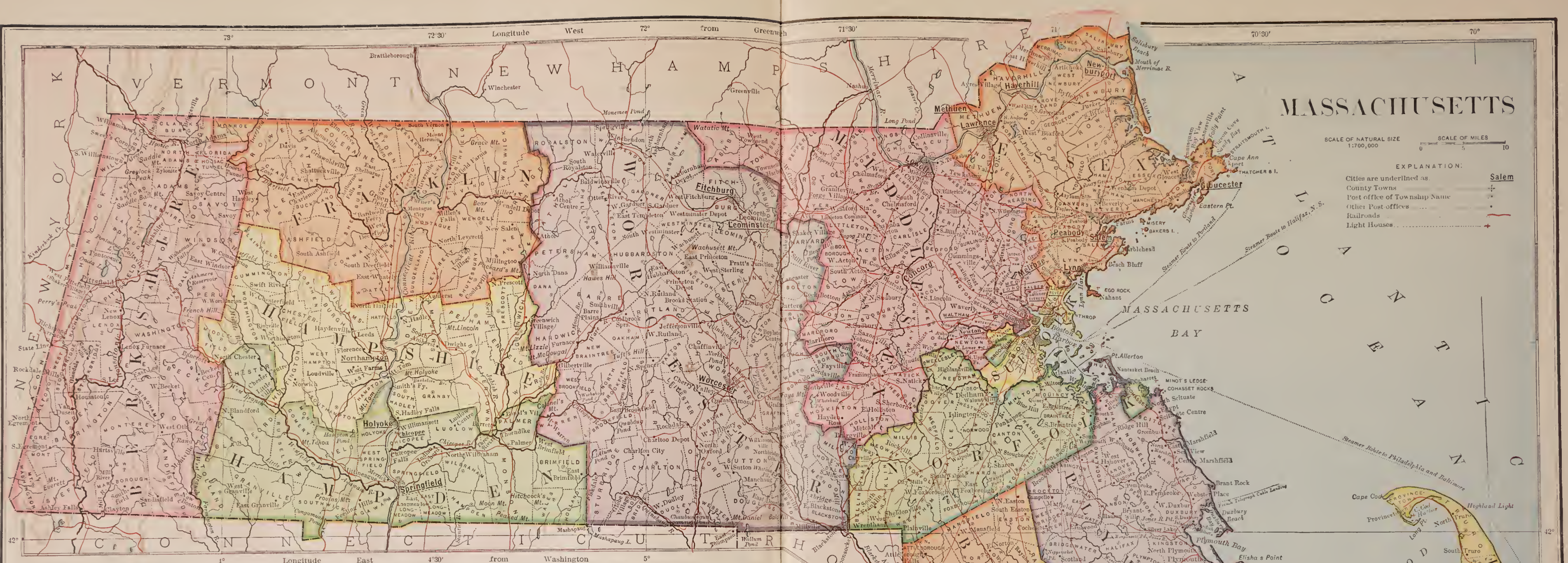
Commerce and Transportation.—Massachusetts ranks second among the states in the value of its foreign commerce. How does Boston rank as a commercial center? What other ports has Massachusetts?

The state ranks second in the Union in the number of miles of railroad it has in proportion to its size. The amount of freight and the number of passengers carried over these roads are enormous.

Education.—In Massachusetts, not more than twenty-five years after the Puritans landed, provision for elementary schools was made in every town of fifty householders, and in every town of a hundred house-

holders for high schools capable of preparing boys for Harvard. The first had already been founded at Cambridge.

The present system of public education comprises elementary grammar schools in every town and city; high school (the first in every properly qualified child; and ten normal schools, the first situated at Framingham, Westfield, Bridgewater, Salem, Boston (the first normal art school), Worcester, Fitchburg, North Adams, Barnstable, Lowell. The Clark School for the Deaf is at Northampton. The Perkins Institution and Massachusetts School for the Blind are in Boston; and the Massachusetts School for the Feeble-minded is at Waltham.



MAP STUDIES.

Size and Position.—Measure by the scale of miles the length of Massachusetts just north of the forty-second parallel. Along the seventy-second meridian. Which states of New England are larger than Massachusetts? Which are smaller? What states of the Union are about the same size? What European countries are in about the same latitude as Massachusetts? What city of southern France is in about the same latitude as Boston? What states of the Union are in about the same latitude?

Boundaries and Islands.—What states adjoin Massachusetts on the north, west and south? What ocean east? What bays indent the coast? What two large islands south? What sound is enclosed by these islands? What channel between them? What islands west of Martha's Vineyard? What sound between Martha's Vineyard and the Elizabeth Islands? Where is Cape Ann? Cape Cod?

Surface.—What three regions are represented in the surface? What part of the State is occupied by the mountains? By the Atlantic plain? By the coastal plain? What range of mountains forms the western boundary? What range east of the Taconic Mountains? Where is Mount Tom? Mount Holyoke? Mount Greylock? Mount Wachusett? Mount Watatic? Saddle Mountain?

Drainage.—How many drainage regions are represented in Massachusetts? What

Commerce and Transportation.—Massachusetts ranks second among the states in the value of its foreign commerce. How does Boston rank as a commercial center? What other ports has Massachusetts?

The state ranks second in the Union in the number of miles of railroad it has in proportion to its size. The amount of freight and the number of passengers carried over these roads are enormous.

Education.—In Massachusetts, not more than twenty-five years after the Puritans landed, provision for elementary schools was made in every town of fifty householders, and in every town of a hundred house-

holders for high schools capable of preparing boys for Harvard, which had already been founded at Cambridge. The present system of public education comprises elementary and grammar schools in every town and city; high school tuition for every properly qualified child; and ten normal schools, which are situated at Framingham, Westfield, Bridgewater, Salem, Boston (normal art school), Worcester, Fitchburg, North Adams, Barnstable, and Lowell. The Clark School for the Deaf is at Northampton; the Perkins Institution and Massachusetts School for the Blind is at South Boston; and the Massachusetts School for the Feeble-minded is at Waltham.

Cities.—What and where is the capital? What four cities on the Merrimac? Locate Worcester. In what direction from Boston and on what are Lynn, Salem and Gloucester? What three large cities in Bristol County? Where is Taunton? What two large cities on the Connecticut? Where are Cambridge and Somerville?

holders for high schools capable of preparing boys for Harvard, which had already been founded at Cambridge.

The present system of public education comprises elementary and grammar schools in every town and city; high school tuition for every properly qualified child; and ten normal schools, which are situated at Framingham, Westfield, Bridgewater, Salem, Boston (normal art school), Worcester, Fitchburg, North Adams, Barnstable, and Lowell. The Clark School for the Deaf is at Northampton; the Perkins Institution and Massachusetts School for the Blind is at South Boston; and the Massachusetts School for the Feeble-minded is at Waltham.



In addition to the high schools, there are numerous private academies, of wide reputation, which fit their scholars for college or for business life. Among the chief of these are Phillips Academy, at Andover, and Williston Seminary, at Easthampton; St. Mark's School, at Southboro; the Groton School, at Groton; Adams Academy, at Quincy; Dummer Academy, at South Byfield; Thayer Academy, at Braintree; Wilbraham Academy; Leicester Academy; and Cushing Academy, at Ashburnham.

First among the institutions for higher education is Harvard University, at Cambridge, which, besides its academic department, comprises schools of law, medicine, divinity, science, agriculture, dentistry, and veterinary surgery.

Williams College, at Williamstown, in Berkshire County, was founded in 1793, originally as a school for the instruction and conversion of the Indians; Amherst College, in Amherst, was founded in 1821. Both of these are among the best classical colleges in the United States.

Of later foundation are the College of the Holy Cross, in Worcester; Boston College, in Boston; Tufts College, at Medford; and Boston University. The last two institutions are open to both sexes.

There are five colleges of high reputation for women only. They are Mount Holyoke, in South Hadley; Smith, in Northampton; Wellesley, in the town of the same name; Radcliffe, in Cambridge, and Simmons, in Boston.



Harvard Hall.

North Gate, Harvard University.

Massachusetts Hall.

Institutions for scientific and technical training are: at Cambridge, the Massachusetts Institute of Technology, which includes the Lowell School of Industrial Design and a School of Mechanic Arts; and at Worcester, Clark University, and the Worcester Polytechnic Institute; also the Massachusetts Agricultural College, at Amherst.

Political Organization.—Massachusetts comprises fourteen counties, thirty-eight cities, and three hundred and seventeen towns.

Form of Government.—The Executive Department consists of a Governor, a Lieutenant-Governor, an Executive Council of eight members, a Secretary of the Commonwealth, Treasurer, Auditor, and Attorney-General, all elected annually by popular vote.

The legislature, known as the "Great and General Court," consists of a Senate of forty members, and a House of Representatives of two hundred and forty members, elected annually.

The Judiciary comprises a Supreme Court, with a Chief Justice and six assistants; a Superior Court, with a Chief Justice and twenty-seven associates; a Probate Court in each county; Police and Municipal courts in cities, and "trial justices" in the rural districts.

The constitution of the state was adopted in 1788. The official title of the state is the "Commonwealth of Massachusetts." The official title of the Governor is "His Excellency," and of the Lieutenant-Governor, "His Honor."



Old North Church, Boston.



State House, Boston.

CITIES AND TOWNS.

I.—CITIES AND TOWNS IN THE BOSTON BASIN.

The region known as the Boston Basin (p. 19) is the most densely populated part of the United States. Here, gathered about Boston harbor, are many cities and towns, each having large manufactures, and all sending their products to Boston for export.

Boston (pop. 745,439) is the largest city in New England, and ranks second in the United States in the value of its commerce, being exceeded only by New York. It is the leading wool, boot and shoe and leather market in the United States, and is one of the greatest manufacturing centers of the country.

It is situated at the western end of Massachusetts Bay, on Boston harbor, one of the best on the coast. It has direct rail communication with all the important cities and towns of New England, and with the West by two routes which cross Massachusetts and follow the Mohawk Valley.

Boston has steamer lines for passengers and freight running direct to western and southern European ports; and fleets of freight steamers, sailing vessels and coasting schooners ply back and forth to other coast ports and to all parts of the world. What are some of the imports? More than four million tons of coal are received at Boston every year by rail and sea, for redistribution throughout New England; and millions of pairs of boots and shoes are shipped annually from Boston. Much grain, beef, and pork is exported from the West through this port.

The manufactures of Boston include almost everything, but chief among them are printed matter, boots and shoes, clothing, machinery, refined sugar, confectionery, tobacco, roasted coffee and ground spice, chocolate and cocoa, carpets and rugs, and copper, tin, and sheet-iron products.

Boston is a great center for publishing and printing newspapers, magazines and books.

The city includes old Boston, and a number of villages which have since been incorporated in it. These are East and South Boston, Charlestown, Brighton, Dorchester, Roxbury, West Roxbury and Hyde Park. If all the cities and villages lying within a radius of ten miles of the center of the city were included, Boston would have a population of about a million people. They are really a part of Boston, because thousands of people who do business in the city have their homes in these near suburbs and constitute a large part of their population. A magnificent system of parks which encircles Boston and many of its immediate suburbs has been planned, and partly carried out.

Boston, settled in 1633, is one of the oldest cities in the country, and is celebrated for the intelligence, refinement and public spirit of its citizens. Among its old buildings made famous by historical association are the Old South Meeting-house, where Adams and Hancock spoke for liberty; Faneuil Hall, the Cradle



Old State House, Boston.

of Liberty; and the Old North Church, from whose tower hung the signal for Paul Revere. Among the many new buildings of great interest are the New State House, with a gilded dome that can be seen miles away; the Public Library, the finest of its kind in the country; a magnificent Museum of Art, and many handsome charitable institutions. Commonwealth Avenue, in the new part of the city, is one of the most beautiful residential streets in the country.

The public schools of Boston are among the best in the United States. Among the most famous of its higher institutions are Boston College, Boston University, and many well-established private institutions.

Cambridge (pop. 109,694), situated directly across the Charles River from Boston, is one of the wealthiest and most beautiful cities of Massachusetts. Its streets are bordered by fine old trees and its residences surrounded by beautiful gardens. It is especially famous as the seat of Harvard University, one of the oldest, richest, and most distinguished colleges in America. Here also is the Massachusetts Institute of Technology, which has been consolidated with Harvard University. Book printing and publishing are largely carried on, and there are considerable manufactures of machinery, rubber, fancy biscuit, and musical instruments, besides large sugar refineries.

Somerville (pop. 93,091), adjoining Cambridge on the north, is a residential and manufacturing city. It has the most important slaughtering and meat-packing establishments in the state.

Everett (pop. 40,120), one of Boston's suburban cities, is separated from Boston and Somerville by the Mystic River. It manufactures coke, chemicals, boots and shoes, and machinery.

Chelsea (pop. 43,184) has ferry and bridge connection across the Mystic River with Boston. It is the seat of the United States Naval Hospital, and manufactures rubber, elastic webbing, shoes, and machinery.

Revere (pop. 28,823) is a residential town. Revere Beach is frequently visited in the summer by more than 150,000 people a day.

Malden (pop. 49,103), a suburb of Boston on the north, is a handsome residence city, and it has manufactures of rubber shoes, wall paper, and carpets.

Brookline (pop. 37,748), a suburb lying on the west of Boston, has many attractive residences. Its chief industry is the manufacture of electrical goods.

Medford (pop. 39,038), manufactures castings, machinery, and pulled wool. It is the seat of Tufts College.

Melrose (pop. 18,204) manufactures rubber shoes, and has many beautiful homes.



Public Gardens, Boston.

Woburn (pop. 16,574), ten miles northwest of Boston, is one of the important leather-manufacturing centers of New England. It manufactures also shoes, chemicals, and machinery.

Waltham (pop. 30,915), on the Charles River, ten miles west of Boston, is an attractive residence suburb, and the seat of the largest watch factory in the world. It manufactures also watch tools, clocks, cotton goods, and automobiles. It is the seat of the home for the feeble-minded.

Newton (pop. 46,054), eight miles west of Boston, is one of its most beautiful residence suburbs, and manufactures woollen and worsted goods.

Quincy (pop. 47,876), southeast of Boston, is famous for its granite quarries, and for being the birthplace of John and John Quincy Adams, and of John Hancock. It has manufactures of iron and steel products, and does a large amount of shipbuilding.

Watertown (pop. 21,457), a residential suburb west of Boston, has a United States arsenal and manufactures paper, rubber goods, stoves, and woollen and knit goods.

Weymouth (pop. 15,057), a few miles from Quincy, has considerable manufactures of boots and shoes and worsted goods.

II.—SEAPORTS NORTH OF BOSTON.

Most of the seaports north of Boston carry on a considerable coasting trade, but foreign commerce is conducted mostly through the larger port of Boston.

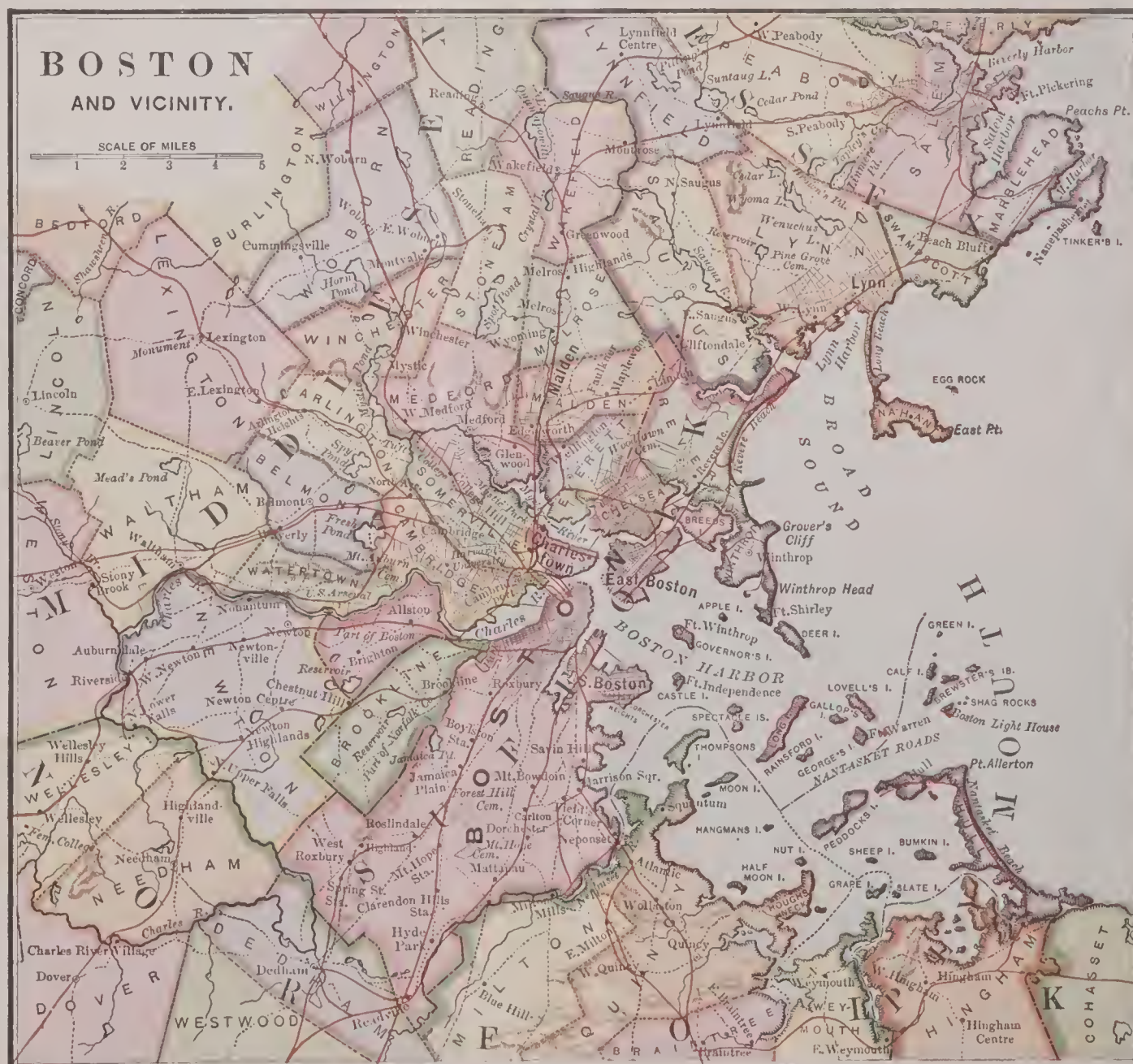
Lynn (pop. 99,148), in Essex County, is situated on the Atlantic coast, about eleven miles north of Boston. It is the great center for the manufacture and export of women's shoes, and it makes electrical instruments of all kinds.

Nahant, one of the most famous summer resorts of the New England coast, adjoins Lynn.

Salem (pop. 42,529), in Essex County, on the coast, is one of the oldest cities of New England, settled in 1626. During the earlier history of Massachusetts it was of very great commercial importance. Now its commerce consists in a large coasting trade chiefly of coal and ice. It has considerable manufactures of boots and shoes, cotton goods, and games.

It is a quaint and beautiful city, with many handsome residences, places of historic and literary interest, and public institutions, as the Peabody Academy of Science, the Salem Athenæum, and the Essex Institute.

Marblehead (pop. 7,606), three miles from Salem, is a quaint old town with a fine harbor. It is a prominent yachting station and summer resort, and does considerable shoe manufacturing. **Peabody** (pop. 19,552), two



miles from Salem, is engaged in tanning and finishing leather. *Danvers* (pop. 11,108) manufactures shoes and is the seat of the State Insane Asylum. *Beverly* (pop. 22,561), on the coast, manufactures shoes and shoe machinery. It has many costly summer residences.

Gloucester (pop. 22,947), on Cape Ann, possesses one of the best harbors on the coast and has from the first been the leading fishing port of the United States. A large fleet of schooners manned by several thousand expert seamen is continually employed in the deep-water fisheries.

It is the first city of the state in canning and preserving, and also in the manufacture of glue.

Newburyport (pop. 15,618) was formerly much engaged in fishing, and had a large coasting trade, but now its chief industry is the manufacture of boots and shoes. *Amesbury* (pop. 10,036), near Newburyport, has extensive manufactures of earriages and hats.



The Churn, Marblehead.

Pilgrims in 1620. Its most interesting building is Plymouth Hall, which contains many historic relics. The chief industries are fishing and the manufacture of woollens, worsteds, cottons, and machinery.

New Bedford (pop. 121,217), in Bristol County, on the Acushnet River, has a fine harbor and is an important center for the manufacture of cotton goods of fine quality. Other important manufacturing industries include the making of boots and shoes, brass and bronze products, tools, lumber, and printed matter. The city is noted for its great wealth in proportion to its population.

Fall River (pop. 120,485), in Bristol County, is situated at the mouth of the Taunton, on Mount Hope Bay, where its harbor has great depth and is perfectly sheltered. From this port one of the finest lines of passenger steamers in the world runs daily to New York. It is the largest cotton manufacturing center in the United States, and also manufactures woollens, mill supplies, bobbins, and machinery. It gets an extensive water power from the waters of Watuppa Lake through the Quequechan River.



Weaving room, cotton mill, New Bedford, Massachusetts.

IV.—IMPORTANT MANUFACTURING CITIES IN THE VALLEY OF THE TAUNTON RIVER.

Taunton (pop. 37,137), in Bristol County, at the head of navigation of the Taunton River, has very extensive manufactures of electro-plated wares, metal goods, bricks, oil cloth, and also of cotton goods. One of the state insane asylums is here.

Brockton (pop. 66,254) ranks with Lynn as one of the great boot and shoe manufacturing centers of the country. *Abington*, near Brockton, manufactures shoes, machinery, and window shades. *Attleboro* (pop. 19,731), in Bristol County, is engaged in the manufacture of jewelry, cotton cloth, and gold and silver refining.



Fall River, Massachusetts.

V.—CITIES ON THE MERRIMAC.

The lower Merrimac, in Massachusetts, is even more famous than its upper waters for the magnificent water power furnished to the cities on its banks.

Haverhill (pop. 53,884), at the head of navigation on the Merrimac, ranks with Lynn and Brockton in the manufacture of boots and shoes. This great industry gives employment to more than one-fourth of the entire population. The poet Whittier was born here.

Lawrence (pop. 94,270), built on both sides of the Merrimac, is a progressive, growing city whose splendid water power has been improved by dams and carried to mills by canals. Its textile manufactures are very extensive, some of the largest and finest woollen and worsted mills in the world being found here. Paper, machinery, and boots and shoes are also manufactured here.

Lowell (pop. 112,759), in Middlesex County, situated on the Merrimac and the mouth of the Concord, has a site unsurpassed for manufacturing purposes.

A fall of 30 feet in the vast volume of the Merrimac at this point gives an enormous water power. This has been utilized by the highest engineering skill and business intelligence, and Lowell has become in consequence one of the greatest textile manufacturing cities in the world. A hundred giant mills produce the goods which clothe millions of the American people.



Whittier's birthplace, Haverhill.

Fitchburg (pop. 41,029), on the Nashua, is an important railroad center.

Its factories turn out engines, shop tools, paper, and cotton and woollen goods. *Leominster* (pop. 19,744) has manufactures of combs, paper, pianos, buttons, jewelry, and toys.

Gardner (pop. 16,971), fifteen miles west of Fitchburg, is famous for its great chair factories. It has large toy factories also. *Methuen* (pop. 15,189) makes cotton and woollen goods and shoes. *Concord*, on a branch of the Merrimac, and *Lexington*, near by, are both prominent in American history.

VI.—WORCESTER AND VICINITY.

Worcester is an interior city and the center of an important district. Many of the surrounding villages are connected with it by train and trolley

Worcester (pop. 179,754) is the second city in size in the state. It is situated in the Blackstone Valley in the rolling upland, and is an important railroad center and distributing point for central Massachusetts.

It has an immense number and a large variety of manufactures. Among the



Machine shop, loom works, Worcester, Massachusetts.

most important are machinery, woollen and worsted goods, clothing, boots and shoes, and printed matter. Other industries include the making of steel, wire, leather belting and hose, corsets, paper goods, carpets, emery and abrasive wheels, and slaughtering and meat-packing.

Its manufactures are exported very largely through the port of Boston.

The city is famous for its fine water supply and its excellent system of sewerage and drainage. It has a fine public library and is a center of educational institutions of high reputation, among which are the Worcester Polytechnic Institute, the Holy Cross College—a famous institution of the Jesuits—and Clark University. Worcester is the home of many famous literary and scientific societies.

Spencer, west of Worcester, has boot and shoe factories, and woollen mills, and makes paper boxes. **Southbridge** (pop. 14,245), on the Quinebaug River, manufactures optical goods, cotton goods, and shuttles. **Milford** (pop. 13,471) has granite works and quarries. **Webster** (pop. 13,258) manufactures cotton and woollen goods. **Framingham** (pop. 17,033) manufactures paper goods and shoes.

Marlboro (pop. 15,028) is a flourishing city largely engaged in making boots and shoes.

VII.—CITIES ON THE CONNECTICUT RIVER have excellent water power, and the country adjoining the river is a fine agricultural region. Many large cities have grown up in this part of the state.



The Lancaster elm. Largest in Massachusetts.

Springfield (pop. 129,614), the largest and most important city of Western Massachusetts, is picturesquely situated on the east bank of the Connecticut River. It is one of the most important railroad centers of the state, and is the site of one of the oldest and largest of the United States arsenals and armories. It has extensive manufactures of machinery, railroad rolling stock, firearms, paper, needles, automobiles, games, kindergarten supplies, and confectionery.

Holyoke (pop. 60,206), on the Connecticut River, has a fine situation for manufacturing, as the river here falls sixty feet in the course of a mile and affords magnificent water power. Its chief manufacture is paper of every kind, for which



Main Street, Springfield, Massachusetts.

it ranks first in the country. It makes, also, large quantities of cotton, woollen and silk goods, wire cloth and machinery.

Northampton (pop. 21,951), beautifully situated among the mountains north of Holyoke, is the seat of Smith College. Its manufactures are silk goods, hardware, cutlery, sewing-machines, and silver-plated ware.

Chicopee (pop. 36,214), across the river, and a little south from Holyoke, has extensive water power and large manufactures of cotton goods, small arms, bobbins, and agricultural tools. **Greenfield** (pop. 15,462) is an important railroad center, and makes cutlery, shoes, mechanics' tools, machinery, and has extensive silver-plating works.

VIII.—CITIES OF WESTERN MASSACHUSETTS.

Berkshire County, occupying the western end of the state, has two cities of importance on the Hoosic and the Housatonic rivers.

North Adams (pop. 22,282), on the Hoosic River, near the west end of the great Hoosac tunnel is picturesquely situated among high hills and within sight of Mt. Greylock. It has large manufactures of cotton and woollen goods, gingham, woodenware, and shoes. **Williamstown**, west of North Adams, is the seat of Williams College.



A Lenox cottage, Berkshire County, Massachusetts.

Pittsfield (pop. 41,763), the central city of the famous Berkshire Hills region, is situated on the Housatonic River and is the most important town between Springfield and Albany. It is a noted summer resort and has various manufactures which include electrical machinery and supplies, silk, woollen goods, paper and paper-making machinery. **Lenox**, south of Pittsfield, is a popular summer resort.

RHODE ISLAND.

Rhode Island.—Area, 1,248 square miles. Population, 604,397.

Surface.—Northern Rhode Island belongs to the uplands of New England, but has an average elevation of not more than between 400 and 600 feet. Here and there hills rise above the surrounding country. The highest of these is Durfee, 805 feet. The central and southern parts of the state are low and in some places marshy. There are many ponds, often called reservoirs, scattered over the state. From Point Judith west the coast consists of beaches of sand rolled up by the ocean. These barren beaches enclose many shallow lagoons. Just back of the lagoons is a long line of morainal hills less than 200 feet in height. These hills turn the drainage westward into the Pawcatuck River. This part of the coast has no harbors and but few inhabitants. East of Point Judith the coast is more rugged.

The most striking and interesting feature of the state is Narragansett Bay, which stretches northward two-thirds the length of the state. The islands and the peninsulas projecting into the bay are the remnants of hills which were not wholly scraped away by the glacier that scoured out this valley, nor wholly submerged when the land subsided.

The ancient mouths of the rivers are submerged and the waters of the bay now enter up to the falls, so that water power and good harbors occur together and the people of the state are gathered about these points.

The islands in the bay and Block Island off the coast, once hills on the old upland, have all become famous summer resorts, noted for their beauty and the invigorating sea air which sweeps across them.

Drainage.—The state is drained almost entirely by three rivers, the Blackstone, the Pawtuxet and the Pawtucket. Which part does each drain? Many small lakes and ponds occur and serve to feed the rivers.

Agriculture.—Rhode Island, as a whole, is not an agricultural state. The most productive sections are in Newport and Bristol counties. Here



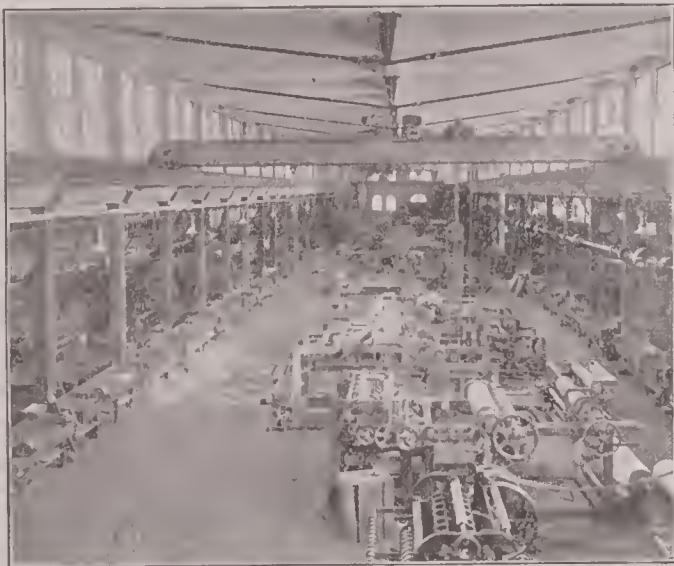
The cliff walk, Newport.

are raised good crops of hay, potatoes, corn and vegetables. Much of the state is fit for grazing, and now more than half the income from the farms comes from the sale of butter, cheese, and live stock. Poultry raising is an important occupation. Market gardens near the large cities are large and profitable, and grow not only vegetables, but large and small fruits and flowers. Rhode Island strawberries are a profitable crop.

Manufactures.—Rhode Island is preëminently a manufacturing state. The manufactures are four times as large as they were fifty years ago, and now more than a fourth of the population are employed in the mills and factories of the state. There is no great harbor like that of Boston, no great system of railways, and all raw products must be imported; yet so good is the water power and so great the skill and energy of the people, that in the general size of the factories and the value per inhabitant of their manufactured product this state holds the first rank in the country. The most important manufactures are woollen and worsted goods. In these Rhode Island ranks as the third state of the Union.

Second in value among manufactured articles are cotton goods of various kinds. Rhode Island is the fifth state in this branch of manufacture. Jewelry, together with the making of silverware and plated ware, and refining gold and silver, ranks as third in importance. Rhode Island leads the states in the manufacture of jewelry. The value of her foundry and machine shop products is enormous. Her engines, cars and electrical machines are used all over this country and in many parts of the world. Among the other important manufactures of the state are electrical supplies, silk and silk goods, hosiery and knit goods, packed meat and lumber.

The leading manufacturing cities and towns are Providence, Pawtucket, Woonsocket, Warwick, Cumberland, East Providence,



A press-erecting room in machine shop at Westerly, Rhode Island.

Cranston, Burrillville, Central Falls, Lincoln, Bristol, and Newport.

Commerce and Transportation.—The foreign commerce of the state is not large, as most of the exports sent to foreign ports are shipped by way of New York or Boston, and the raw products are received through these ports; but an enormous amount of freight is carried over the railroads. Fleets of coasting vessels bring coal and lumber, and passenger vessels ply between Rhode Island ports and New York.

Education.—Rhode Island, like the other New England states, has an excellent system of public elementary, grammar and high schools. They are under the guidance of a State Board of Education and a School Commissioner. The State Normal School is located at Providence, and the Rhode Island State College at Kingston.

Brown University, at Providence, is one of the oldest American colleges, having been founded by the Baptists in 1764.



Brown University, Providence.

The English and Classical High School

and the Manual Training High School, at Providence; the Rogers High School, at Newport; the Friends' School, at Providence; and the East Greenwich Academy are schools of wide reputation.

Political Organization.—Rhode Island is divided into five counties, thirty-three towns, and six cities: Providence, Newport, Pawtucket, Woonsocket, Central Falls, and Cranston.

Form of Government.—The official title of the commonwealth is the "State of Rhode Island and Providence Plantations," reference being made to the original settlements at Providence and Newport, which were formerly both retained as capitals. Now Providence alone is the capital.

The Executive Department consists of a Governor, Lieutenant-Governor, Secretary of State, Treasurer, and Attorney-General, who are known as the general officers, and are elected biennially by the people.

The legislature consists of a Senate of thirty-nine members, one for each town and city, and a House of Representatives of one hundred members. Both senators and representatives are elected biennially by the people.

The Judiciary system of the state comprises a series of twelve district courts, superior courts, and one Supreme Court. The Supreme Court, with a Chief Justice and five associates, is composed of two divisions, the Appellate and the Common Pleas.

CITIES AND TOWNS.

I.—CITIES. Rhode Island has only six cities, but about 70 per cent. of the entire population of the state is gathered in these six cities.

Providence (pop. 237,595), the capital of Rhode Island, is the second city in New England in size, importance and wealth, and ranks as one of the great manufacturing cities of the country. More than one-third of the present population of the state is within the boundaries of this city.

MAP STUDIES.

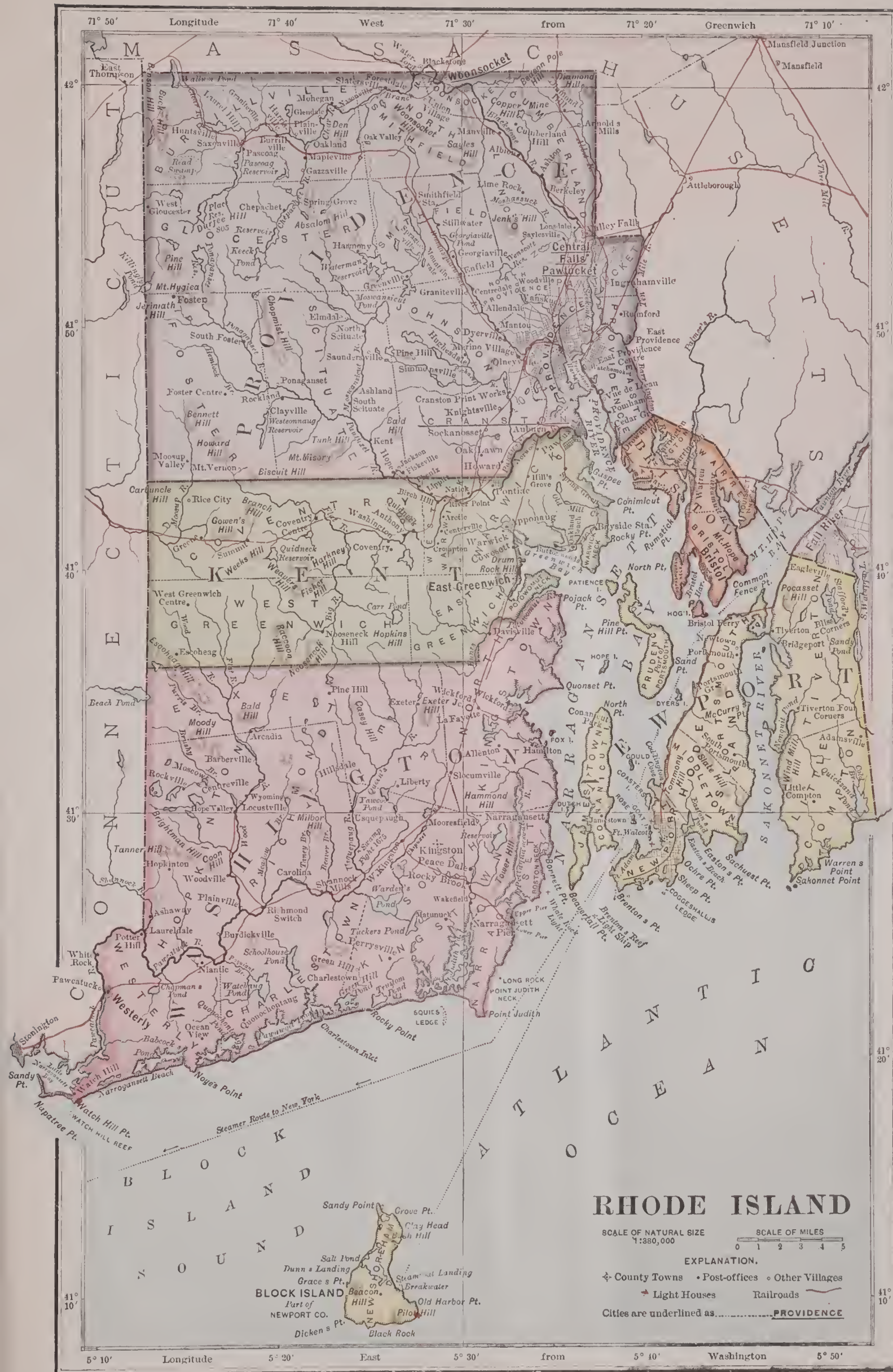
Size and Position.—Measure by the scale of miles the length of the western boundary of Rhode Island. Measure its northern boundary. How does it compare in size with the other New England states? With the other states in the Union?

Boundaries.—What state on the north and east? On the west? What body of water south? What bay in the southeastern part? Where is Greenwich Bay? Mount Hope Bay? Little Narragansett Bay? Where is Point Judith? Name four points west of Point Judith. Where is Sakonnet Point? Name five points between Point Judith and Sakonnet Point. Name four on Block Island. Name three islands in Narragansett Bay. What island off the southern coast?

Surface.—What parts of the state contain hills? Locate Durfee Hill; Jerimath Hill; Benson Hill. Name five hills in Providence County; five in Kent County; five in Washington County; three on Block Island. Name five ponds and tell in which county each is situated. What river crosses the northeastern part of the state? Into what does it flow? Describe the situation of the Providence River. The Sakonnet. Into what does the Pawtuxet flow? The Pawcatuck?

Counties.—How many counties has Rhode Island? Which are the two largest? The smallest? Which one consists largely of islands? How many of the counties have direct communication with the ocean? Bound the county in which you live.

Cities.—Name and locate the capital. Where is Pawtucket? Woonsocket? Warwick? Central Falls? Lincoln? Bristol? Burrillville? Newport?



It is on important railroad lines between New York and Boston, and is situated on a fine harbor near the head of the estuary called the Providence River. It has a large coastwise trade and steamer lines to New York.

The manufactures of Providence are varied, and of immense value. It ranks first in the Union in the production of jewelry and silverware, and among the highest in the quality of its textiles. The high grade and accuracy of its tools carry them to all parts of the world, and its machines are equally famous. Among its other most important manufactures are wire, screws, chemicals, rubber goods and clothing. The wages paid to the operatives in the Providence factories amount to nearly half of the wages paid in the entire state.

Providence is a handsome city, with broad, shaded streets, beautiful parks, monuments, and private residences, and with handsome public buildings. The State capitol is one of the finest in New England; its normal school is a fine structure, and its large railroad station is one of the most complete in New England.

Here are located the State Normal School, Brown University, the Friends' School, and a number of commercial schools and denominational institutions. It has several well-equipped libraries.

Pawtucket (pop. 64,248), the second city in size and importance in the State, is about five miles north of Providence, at the head of the Providence River, and where there is a fall of fifty feet. Its textile manufactures are its chief wealth.



Westminster Street, Providence.

These include fine cottons, thread, sateens, hose, woollen goods and worsted braids. It is also famous for machines, hair-cloth, jewelry, and it has extensive bleaching, dyeing, and calico-printing works.

Woonsocket (pop. 43,496), in the northern part of the State, on both sides of the Blackstone, is an important center for the manufacture of

woollen goods, worsteds, cottons, such as sheetings and linings, and rubber goods. It has large foundries and machine shops.

Neurport (pop. 30,255), formerly one of the State capitals, is situated at the southern end of the island of Rhode Island. It has a safe and commodious harbor, and at one time had a large foreign and domestic trade, but now it is chiefly famous as a summer resort for the wealthy and fashionable. The "Old Stone Mill" and the old State House are buildings of historic interest, while the Redwood Library, the Casino, the Jewish Synagogue, and many palatial residences attract many visitors. The United States Government has here a war college, torpedo station, and training station for the United States Navy.

Central Falls (pop. 24,174), on the Blackstone, just north of Pawtucket, is a manufacturing city of importance, and turns out cotton goods, thread, worsted goods, knit goods, knitting machines, paper boxes, hair-cloth goods, and metals.

Cranston (pop. 29,407) has



The Casino, Narragansett Pier.



State Capitol, Providence.

enormous calico printing, and bleaching and dye works, and manufactures safes. It has beautiful residences. The State jail and reformatory is here.

II.—MANY TOWNS OF PROVIDENCE COUNTY, especially near the cities, have each a number of villages, large manufacturing interests and extensive market gardens. It is the most populous county of the State.

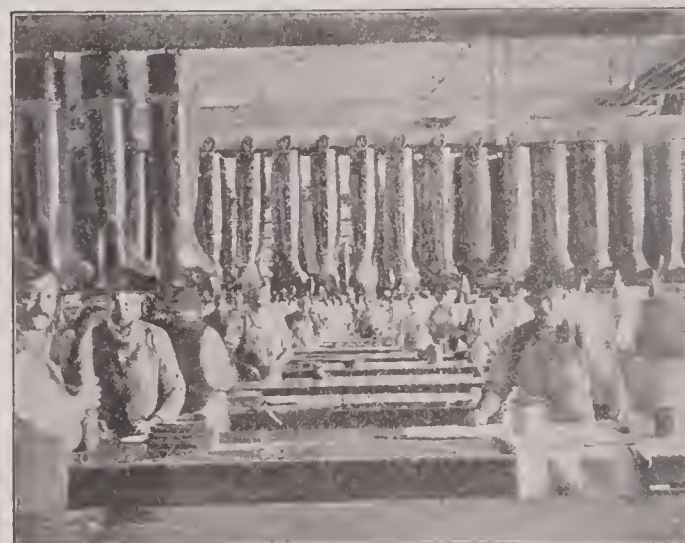
East Providence (pop. 21,793), one of the finest residential towns, adjoins Providence, and has important manufactures of chemicals and electric wire. **Lincoln** (pop. 9,543), whose eastern boundary is the Blackstone River, contains lime quarries, and has famous cotton and woollen mills, and extensive bleacheries. **Johnston** has great cotton mills; also woollen and worsted mills, and important bleaching and dyeing works. **Cumberland** (pop. 10,077) has mines of coal and iron, quarries and granite, and has large cotton mills. **Burrillville**, in the extreme northwestern part of the State, has enormous woollen mills. **North Providence** has worsted and cotton mills. **Scituate** manufactures cotton.

III.—TOWNS OF KENT COUNTY:

Warwick and **West Warwick** are among the most thickly populated towns in the State, having 27 villages and an aggregate population of 28,942 people. **Warwick** is well situated on Narragansett Bay, and has fine water power on the Pawtuxet River. Its chief manufacture is cotton, for which it has many mills on the river. It also makes woollen goods, and has a large foundry. There are several noted summer resorts in the town along the shores of the bay. **Coventry** manufactures cotton and woollen goods, cotton-yarns and shoe tags. **East Greenwich** has cotton and woollen mills, and bleacheries.

IV.—TOWNS OF BRISTOL COUNTY:

Bristol (pop. 11,375), in Bristol County, is beautifully situated, overlooking Narragansett and Mount Hope bays. It has cotton, woollen and rubber factories and is famous for its yacht-building. It has many beautiful residences. Steamers from Providence to Fall River stop here. **Warren** manufactures cotton goods, textile machinery, and steam regulators. **Barrington** has large brick kilns.



Rubber-boot making, Woonsocket, Rhode Island.

V.—TOWNS OF WASHINGTON COUNTY:

Westerly (pop. 9,952) is the largest town of Washington County. It has immense and valuable granite quarries and large woollen, cotton and thread mills. It also makes printing presses and carriages. **Watch Hill** is a famous summer resort. **North Kingstown** manufactures woollens, worsteds and cotton-yarns and cloth. **South Kingstown** also has manufactures of woollen goods. **Narragansett Pier**, in the town of Narragansett, is one of the most celebrated watering-places of the world.

VI.—TOWNS OF NEWPORT COUNTY:

Tiverton manufactures fish-oil and fertilizers from menhaden caught in the near waters. **Little Compton**, **Jamestown**, and **Block Island**, which is the town of **New Shoreham**, are summer resorts of wide reputation. All of these towns have large market gardens. **Portsmouth** is an agricultural town and produces seeds in quantities.



Old Stone Mill, Neurport.

CONNECTICUT.

Connecticut.—Area, 4,965 square miles. Population, 1,380,629.

Surface.—Connecticut, like Rhode Island, belongs to the upland region of New England; but the northwestern part, being a continuation of the Taconic Mountains of Massachusetts, is considerably higher than any part of Rhode Island. Bear Mountain, in the northwestern corner of the state, reaches a height of 2,355 feet, and the upland in Litchfield County has an average height of more than a thousand feet, which diminishes gradually toward the east and more rapidly toward the south. In many places single hills are left standing upon the plain, but no other is as high as Bear Mountain. As the rivers of the state have travelled southward they have cut deep valleys in the uplifted plain. The middle of the state is crossed from north to south by a strip of rather soft red sandstone, through which the Connecticut has cut a broad valley as far as Middletown. The river makes an abrupt turn here away from the sandstone region, and has cut its way below this point through harder rock. West of the Connecticut, crossing the state from north to south, there are ridges of hills formed of trap-rock which has long resisted erosion. The same ridges appear farther north in Massachusetts. The Hanging Hills, near Meriden; Taleott Mountain, just east of the Farmington; East Rock and West Rock, near New Haven, are parts of the trap ridges. The river valleys in the eastern part of the state are generally rather



East Rock, near New Haven, showing Soldiers' and Sailors' Monument.

wide and low, while those in the western part are narrower and steeper. The Housatonic Valley in the northwest descends quite abruptly for something like five hundred feet.

Coast.—The coast of Connecticut has not sunk so much as that of Maine, hence, though it has some harbors made by the submergence of the river valleys, they are not so large as in the north. The best of these harbors are where New Haven, New London, Stonington and Bridgeport are located.

Drainage.—The general drainage of the state is toward the south. Besides the Connecticut, the Thames on the east and the Housatonic on the west are the chief drainage basins. The Connecticut is navigable for small vessels to Hartford; the Thames to Norwich, and the Housatonic to Derby. All the larger rivers have falls in their upper courses.

The Quinnipiac is the longest river of the lowland region. Where does it rise? What city is at its mouth?

Agriculture.—Connecticut, like Rhode Island, is not especially adapted to agriculture. The northwestern part is stony and not very fertile, and the coast regions are somewhat marshy; but the Housatonic Valley contains rich soil, and the Connecticut Valley has the most productive farm lands in New England. Hartford County raises nearly two-thirds of all the tobacco grown in New England. The Housatonic and Connecticut valleys also produce large crops of hay,

corn, potatoes, garden seeds, apples, peaches and pears. In the higher regions, dairying is assuming large proportions, and now three-fourths of the farm acreage of the state is devoted to it. Butter, cheese, poultry and eggs are among the most valuable products of the farms of the state. Market gardening near the large cities is also an important branch of agriculture.

Manufactures.—More than a fifth of the people of Connecticut are engaged in manufacturing.

What are some of the advantages the state has for this industry? The number of its harbors and its nearness to the great port of New York add much to its other advantages. More



Lock factory, Stamford, Connecticut.

patents are issued to the people of Connecticut than to any equal number of people in any other state, and more manufactures are carried on in the state which are protected by patents than in any other state of the Union. An almost countless number of articles known as "Yankee notions" are made here, such as pins and needles, tapes, machines for sticking pins in paper, hooks and eyes, picture nails, toasters, egg-beaters and lamp-holders. The process of vulcanizing rubber was invented in New Haven, as were also the six-barreled revolver and electro-plating. The first woollen mill in the United States was established in Hartford in 1788, and at about the same time clock making began there. The chief manufactures of the present time are brass and bronze products, machinery, cotton, silk, and woollen goods, firearms and ammunition, silverware and plated ware, corsets, automobiles, cutlery and tools, felt hats, electrical supplies, lumber, clocks and watches, hosiery and knit goods, musical instruments, and paper and pulp.

The leading cities in manufacture are New Haven, Bridgeport, Waterbury, Hartford, Ansonia, Meriden, New Britain, Torrington, Naugatuck, Danbury and Norwich. A large proportion of the population of the state is gathered in these cities.

Commerce and Transportation.—Connecticut has a large commerce, both domestic and foreign. It consists in importing raw materials and in exporting manufactured articles.

Passenger steamers ply between the Sound ports and Boston and New York, and many coasting vessels bring in raw materials. The state is well covered with railroads.



Yale University, New Haven.

Education.

—Connecticut has a very complete system of public elementary, grammar, and high schools, under the direction of a State Board of Education. There are four normal schools, located at New Britain, Willimantic, Danbury and New Haven.

There are also a number of private academies of reputation. Among these are the Sheffield Literary Institute, the Hopkins Grammar School, at New Haven; the Norwich Academy; the Episcopal Academy, at Cheshire; the Morgan School, at Clinton; and the Hotchkiss School, at Lakeville.

Yale University, at New Haven, established in 1701, is one of the leading universities of the United States. Besides the usual classical college, it embraces schools of law, divinity, medicine, and the fine arts, and also the Sheffield Scientific School. Other important institutions of higher education are Trinity College, at Hartford, and Wesleyan University, at Middletown. Connecticut also supports an Agricultural College and experiment station, at Storrs.

Political Organization.—Connecticut is divided into eight counties, and these in turn into twenty cities, one hundred sixty-eight towns, and twenty-one boroughs.

Form of Government.—The Executive Department consists of a Governor, a Lieutenant-Governor, a Secretary of State, a Treasurer, a Comptroller, all elected for two years, and an Attorney-General, elected for four years.

The legislature, called the General Assembly, comprises a Senate of thirty-five members, and a House of Representatives of two hundred and fifty-eight members. The members of both branches are elected for two years.

The Judiciary consists of a Supreme Court, with a Chief Justice and four associates; a Superior Court; Courts of Common Pleas; City Courts, and Probate Courts.

CITIES AND TOWNS.

I.—THE COAST CITIES OF CONNECTICUT are flourishing trade and manufacturing centers which have grown up about the harbors. A railroad line follows the coast, closely connecting these seaports, and terminating in New York on the west and Boston on the east.

New Haven (pop. 162,537), at the head of New Haven Bay, is the most important seaport and the largest city in the State.

It is the terminus of a number of lines of railroad from the Connecticut Valley which bring the city into direct communication with all parts of New England, and it has daily steamboat service to New York and Providence and a large coast-wise trade.

Its manufactures are many and varied, but the most important and extensive are hardware and rubber, in which it is one of the leading cities of the section. It has also large manufactures of firearms and ammunition, and packed meat, and makes carriages and automobiles, machinery, corsets, buttons, hosiery, and paper.

It is a handsome city, with wide streets shaded with elms so numerous and beautiful that it is known as the City of Elms.

New Haven is the seat of Yale University. The Hopkins Grammar School, also located here, was founded nearly two hundred and fifty years ago.

The town of **Hamden** (pop. 8,611), just north of New Haven, has many factories, in which are produced carriage hardware, pruning-shears and other tools, and silk goods. **Milford** (pop. 10,193) is a flourishing town, whose principal industries are the raising of seeds, oyster fishing, and the manufacturing of straw hats and electrical supplies. The town of **Orange** (pop. 16,614) is largely devoted to agriculture. It contains the borough of **West Haven**, in which there are various manufactures. **Branford** (pop. 6,627) has manufactures of electrical supplies, and iron goods. There is considerable market-gardening done in all these towns.



Temple Street, New Haven, Connecticut.

Bridgeport (pop. 143,555), in Fairfield County, on the Sound, is an important city, having an extensive commerce and important business connections with inland towns, daily steamers, and many manufactures of great value. They are chiefly machinery, corsets, phonographs, typewriters, automobiles, rubber goods, and electrical apparatus. It is a fine looking city, with beautiful public parks, and many handsome residences.



Automobile factory, Bridgeport, Connecticut.

contains the two cities of **Norwalk** and **South Norwalk** (pop. 27,743), both of which are engaged in the oyster business, and have manufactures of woollens, hats, locks, stoves, shoes, gasoline engines, and boats.

Westport (pop. 5,114), adjoining Norwalk, has manufactures of rope and twine, buttons, mattresses, scales, morocco, and starch.

Stamford (pop. 35,096) is about eight miles west of Norwalk, on the sound. It has steamer lines to New York and a considerable coast trade. It manufactures locks, wall-papers, typewriters, dyestuffs and pianos. It has many handsome streets and beautiful residences.

Greenwich (pop. 22,123), the next town west of Stamford, has many beautiful summer homes of wealthy New York people.

New London (pop. 25,688) is situated on the Thames River, an estuary of the sound. It has a fine harbor, protected by two forts, and here also is a United States Naval Training Station. There are several steamer lines to New York, Norwich, Sag Harbor and Block Island. It has extensive railroad connections. The chief industries are the manufacture of silk, machinery, bed comfortables, and brass and copper tubing. It does considerable shipbuilding.

MAP STUDIES.

Size and Position.—Measure by the scale of miles the greatest length of the state. The greatest width. How does it compare in size with the other New England States? What two states of the Union are smaller?

Boundaries.—What states surround Connecticut on three sides? What body of water south? Where is Fisher's Island? To what state does it belong? Of what part of the coast are the Thimble Islands? The Norwalk Islands? Pink's Island? Charles Island? Great Captain's Island? Name the coast points on which lighthouses are situated. Name two bays. Locate the principal harbors on the coast.

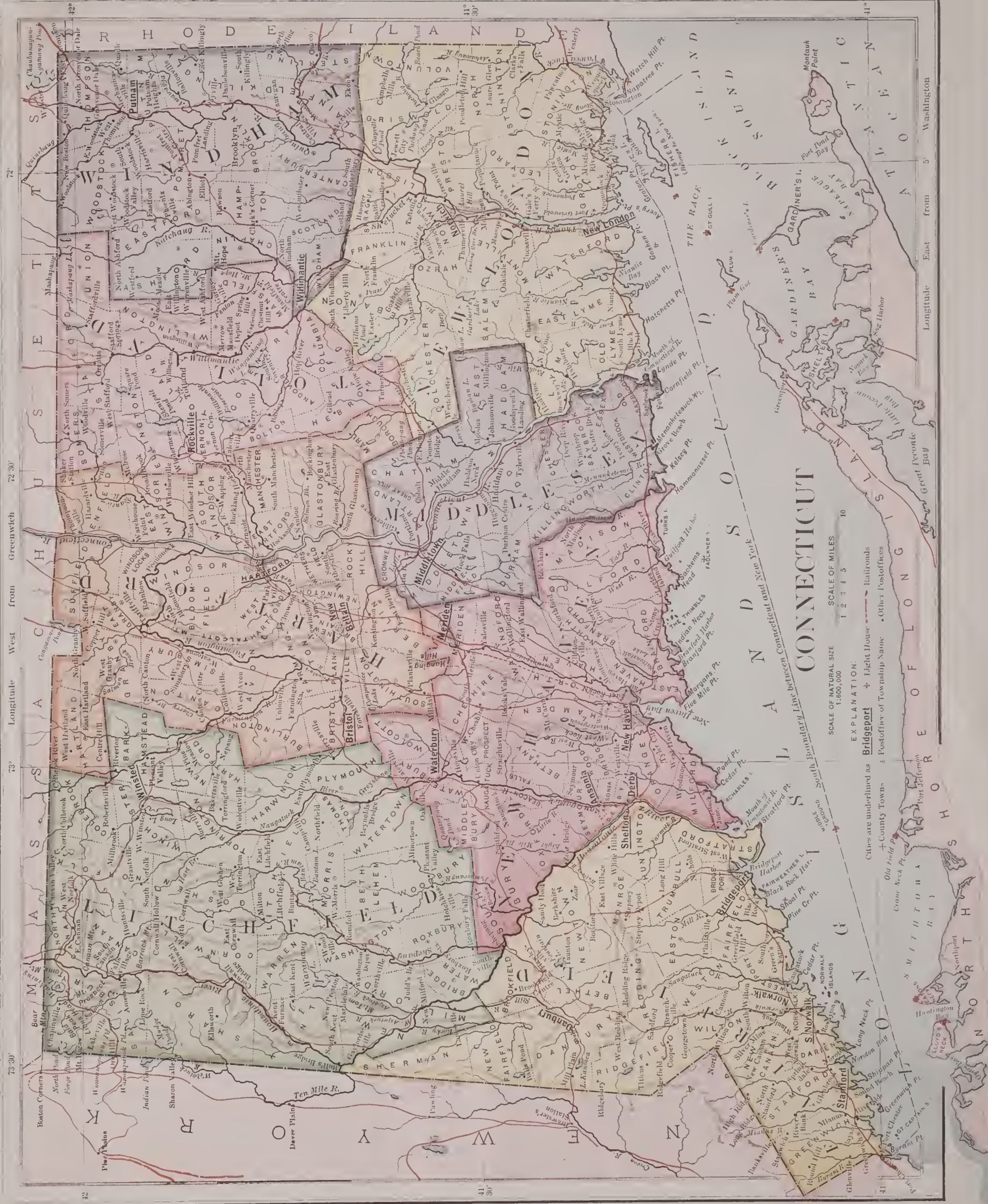
Surface and Drainage.—Which is the highest part of the state? Locate Talcott Mountain, Mount Tom, Bald Peak, Bear Mountain. Of what ranges in Massachusetts are they the continuation? Into what do the rivers of the state drain? What are the three principal rivers of the state? Name two branches of the Housatonic. Two of the Connecticut on the east. One of the Connecticut on the west. Describe the course of the Farmington. What two rivers unite to form the Thames?

Counties.—How many counties has Connecticut? Which of them border on Massachusetts? Which on Rhode Island? Which on New York? Which on Long Island Sound? Give the boundaries of the county in which you live.

Cities.—What and where is the capital? Locate New Haven, New London, Bridgeport, Waterbury, Meriden, New Britain, Naugatuck, Norwich, Torrington, Stamford, Danbury.

The town of **Fairfield** (pop. 11,475) has enormous chemical works, and manufactures wire and rubber goods. It has a number of summer resorts on the shore.

The town of **Norwalk**, on the sound



CONNECTICUT

SCALE OF NATURAL SIZE
1:600,000

SCALE OF MILES
1 2 3 4 5 10

EXPLANATION:
Cities are underlined as **Bridgeport** + Light House
+ County Towns
+ Postoffice of Township Name
+ Other Postoffices

Longitude East from Washington

Longitude East from Greenwich

Longitude East from New York

Longitude East from Philadelphia

Longitude East from Baltimore

Longitude East from New Orleans

The town of *Groton* (pop. 9,227), across the river from New London, is connected with it by ferry lines. The principal industries are shipbuilding, agriculture and fishing.

Stonington (pop. 10,236), on the sound, in the southeastern corner of the State, has a safe and commodious harbor and several lines of steamers to New York and nearer ports. It has large velvet mills and machine shops, and along the Mystic River are woollen mills and shipyards.

II.—THE THAMES AND ITS TRIBUTARIES afford good water-power, which has promoted manufactures and helped build up cities and towns in eastern Connecticut.

Norwich (pop. 22,304), in New London County, is situated at the head of navigation on the Thames, and at the junction of the Shetucket and Yantic rivers. It has a good harbor, a large coast-wise trade, and steamer lines to New York. The city and its immediate vicinity have large manufacturing interests in cotton, silk, woollen goods, firearms, cutlery, paper, and machinery of many kinds.

The town of *Griswold* with the borough of *Jewett City* has important manufactures of cotton cloth and thread.

Willimantic (pop. 12,330) is situated on the Willimantic River, where there is a fall of 100 feet in a mile of its length. There are extensive manufactures of thread and sewing silk. Cotton and silk goods are also made here.

The town of *Stafford* (pop. 5,407), including the borough of *Stafford Springs*, has a number of very large woollen mills. *Plainfield* (pop. 7,926) manufactures foundry products, cotton and woollen goods.

Putnam (pop. 7,711), a city in Windham County, on the Quinebaug River, has manufactures of cotton, woollen and silk goods, shoes, and steam heaters.

III.—CITIES ALONG THE CONNECTICUT. While the Connecticut Valley is largely devoted to agriculture, there are a number of cities in it whose manufactures add much wealth to the State.

Hartford (pop. 138,036), in Hartford County, on the west bank of the Connecticut, at the head of navigation, is the third city in size and the capital of the State. It is the great insurance center of the country, and ranks as the fourth city in Connecticut in the value of its manufactures. It is a very important railroad center, has a considerable trade by water and a daily steamer to New York. It is an important tobacco market.

Its manufactures are of great variety and extent. They are chiefly automobiles, machinery, typewriters and supplies, dentists' materials, nails and screws, and leather belting.

The city is well situated and handsome. The state capitol, of white marble, is one of the most imposing public buildings in the country. Hartford is the seat of the American Asylum for the Deaf and Dumb, founded early in the century; of Trinity College, of Watkinson Library, and of the Retreat for the Insane.

East Hartford (pop. 11,648) is largely engaged in growing and packing tobacco. *Manchester* (pop. 18,370) is famous for its silk manufactures, among the largest in the world, and for the provision made by the mill-owners for the comfort and welfare of their workmen. *Suffield* is a rich farming and tobacco-growing town. Many cigars are made here. *Enfield* (pop. 11,719) is a flourishing town containing *Hazardville*, the seat of a shoddy and wool-waste factory, and *Thompsonville*, celebrated for its carpet manufacture.



Finishing room, Silver Company, Meriden, Connecticut.

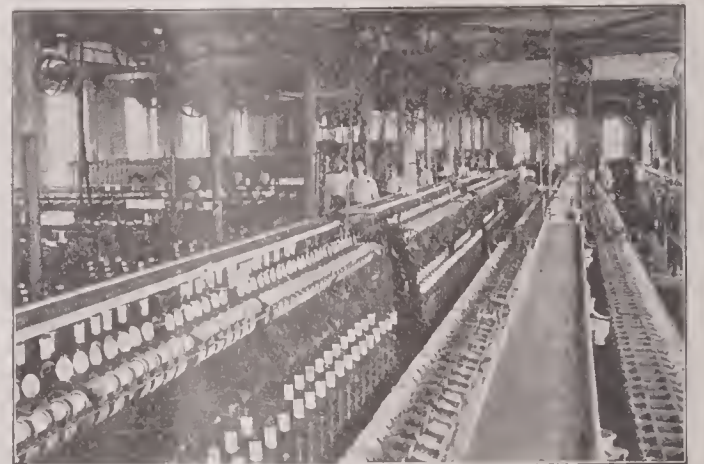


Capitol and Arch, Hartford, Connecticut.

rods, iron castings. *Southington* (pop. 5,085) has a large rolling mill, and also makes hardware, cutlery and nuts and bolts. *Berlin* makes bricks and plumbers' hardware. *Farmington* manufactures paper, piano felts, and tools.

Rockville (pop. 7,726) is a city on the Hockanum River, where there are falls of 280 feet, which it uses for silk and woollen mills. It also manufactures envelopes.

Meriden (pop. 29,867) is a thriving city on the Quinnipiac River, just half way between Hartford and New Haven. It is often called the Silver City, from its enormous productions of silver and plated ware. It turns out also immense quantities of self-playing musical instruments, cutlery, lamps, sheet and cast brass trimmings, hardware, firearms, sleigh bells, clocks, and many other things.



Spinning room, silk mills, Rockville, Connecticut.

The borough of *Wallingford* (pop. 12,010) is well situated on the Quinnipiac River, and has large manufactories of silver, silver-plated ware, tools, brass goods, hardware, and makes also carriages and paper boxes.

IV.—THE HOUSATONIC RIVER, and its chief branch, the Naugatuck, have many important cities and towns on their banks.

Waterbury (pop. 91,715), the chief city in the Housatonic Valley, is on the Naugatuck River, in New Haven County, and ranks as one of the first cities in the country in the brass industry, boilers, wire, pins, hooks and eyes. It has also enormous watch factories. Waterbury is a beautiful city, with handsome residences, a fine park, and a public library.

Naugatuck (pop. 15,051) is an important center for the manufacture of rubber goods, and also manufactures knit underwear, buttons and iron castings. *Watertown* (pop. 6,050) makes spool silk, hardware and brushes. *Torrington* (pop. 20,623) and *Winsted* (pop. 8,248) are two important boroughs of Litchfield County. Torrington manufactures brass, copper, nickel-silver and gold-plated goods, and Winsted makes agricultural tools, hardware, cutlery, clocks, pins and hosiery.

Ansonia (pop. 17,643) and *Derby* (pop. 11,228), adjoining cities in New Haven County, have extensive water-power from the Naugatuck River. Ansonia turns out brass and copper in various forms, and has large foundries. Derby manufactures plated ware, pianos and organs, pins, hosiery and machinery.

Shelton (pop. 9,475), opposite Derby, has important manufactories of ribbons, velvets, pins, tacks and silverware. *Seymour* (pop. 6,781) has been the home of the auger and bit industry for more than a century. *Stratford* (pop. 12,347), at the mouth of the Housatonic River, has lumber and concrete works and a large oyster trade. *Newtown* is chiefly a farming town, with some manufactories of rubber-lined hose.

Danbury (pop. 18,943) is famous for its manufacture of hats, ranking first in the country in that line. The hat business was established in Danbury in 1780, when three hats a day were made.

Bethel, adjoining Danbury, manufactures hats and boxes. *New Milford* is a tobacco-growing and packing town, and also makes hats. *Salisbury* is a beautiful hill town in northwestern Connecticut. It manufactures rubber goods.

LIBRARY OF CONGRESS



0 029 719 558 A